

# American Artisan

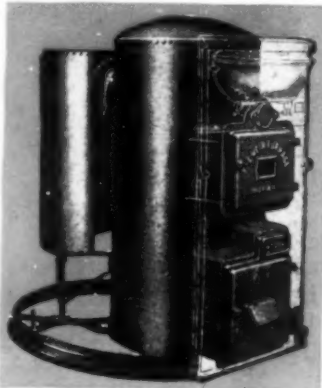
and Hardware Record

## Sheet Metal Work-Warm Air Heating

Vol. 94, No. 10

CHICAGO, SEPTEMBER 3, 1927

\$2.00 Per Year



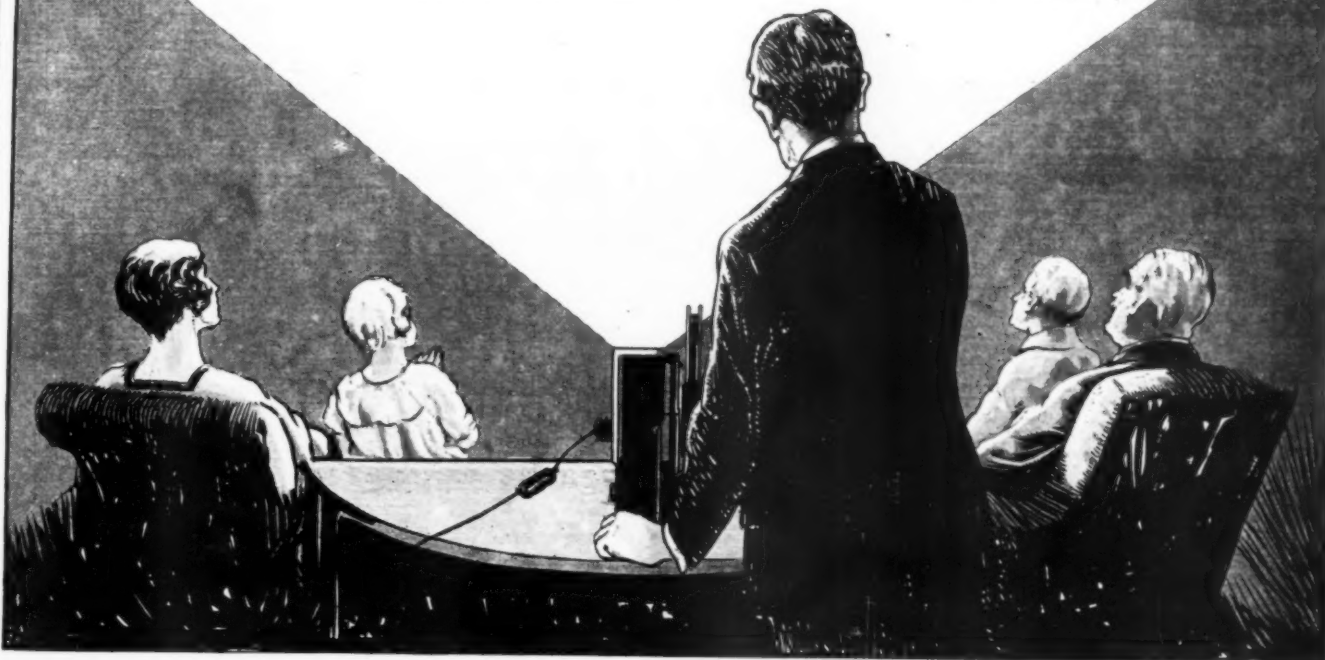
**Weir**  
**Steel Furnace**

**S**ALES co-operation, the most practical and of the highest class—in keeping with the quality of the Weir—has always been available for Weir dealers.

Now Weir has made a moving picture film for you to show to your prospective customers a photoplay that tells the story of *Better Warm Air Heating* and how it is obtained with the Weir.

Write for full details today!

**The MEYER FURNACE CO.**  
Peoria, Illinois



# Sell Known Performance—

*No other steel furnace is made of as heavy steel throughout the entire line as that used in the Torrid Zone Furnace---*



THIS means that our 31 years of experience has taught us that the thickness we use is best for durability and heating results. It means that the Torrid Zone meets the demand for lasting quality.

It means that the Torrid Zone, *the largest selling furnace on the market*, is sold on a quality basis and that it is easy to sell.

YOUR customers know that the Torrid Zone will give lasting and efficient performance because of this better quality.

You sell *known performance* because you offer our 10 year guarantee with the Torrid Zone. You sell *known performance* because the Torrid Zone features insure proper heating and smooth, efficient operation.

(Our catalog gives the complete details of Torrid Zone construction—write for your copy today).

*Two large factories and the most efficient furnace organization in the country are at your service*

BECAUSE the Torrid Zone is made by *the largest manufacturers of steel furnaces in the country* and because this company has been a leader in the furnace industry for over 30 years you can rest assured that once you become a Torrid Zone dealer your furnace business rests on a solid foundation and that your sales will increase.

The Torrid Zone method of cooperation enables you to establish a profitable and growing furnace business.

*An advertising and merchandising plan that is result getting and individual*

OUR years of experience make it possible for us to give you just the kind of sales and advertising help you need. Our cooperation is not the same for every dealer—we analyze your business and put effective cooperation to work for you.

Just write and say you are interested—we will be glad to give you full information.

The Lennox Furnace Company  
Marshalltown, Iowa - - - - - Syracuse, New York

# Lennox Torrid Zone Furnace

# A VOTE OF THANKS

We take this opportunity of extending our very hearty thanks to all those who attended our first fan-furnace heating exhibit, demonstration and convention in Chicago, August 30-31. We also deeply appreciate the kind sentiments of those who were unable to attend and trust we may soon have an opportunity to reciprocate their good wishes.

The splendid interest shown in our efforts to promote better warm air heating is a tremendous encouragement and an inspiration to carry on toward the high ideals we have in our work. The wonderful spirit of cooperation on the part of those who were with us in person or in spirit bespeaks, we feel, a very promising future for all concerned.

This is just a beginning. We hope you will not hesitate to call on us for any engineering or other service that we can render for the good of the industry, and we assure you that at all times we shall be ready to serve you faithfully and with a full recognition of our responsibility.



*Style A Booster. An original idea, by far the most advanced step in furnace-fan heating. Shipped complete—nothing to get out of order—merely hang it inside the casing or cut a slot in it to install the booster.*

**BUILT TO FIT ANY  
WARM AIR FURNACE**

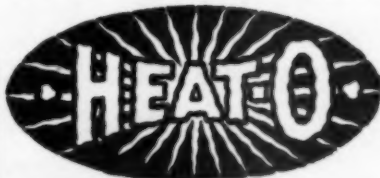


*The Heat-O Booster draws cold air directly from the rooms or from the return air pipes. Air is discharged directly and uniformly against the hottest part of the furnace, extracting more heat units. When the return air rises the Heat-O Booster shoots it up into the casing, through the leaders with sufficient force to overcome any resistance or cold air pressure.*

## THE HEAT-O LINE

of furnace fans and boosters has been developed to promote better warm air heating—to improve the ordinary job—to take care of unusual jobs. Homes, apartments, stores, schools, churches, factories, etc., offer a fertile field to the furnace manufacturer, dealer and jobber seeking better class work. A wonderful opportunity is before all those who push fan-furnace work. It means better profits, bigger business.

## FANS—BOOSTERS

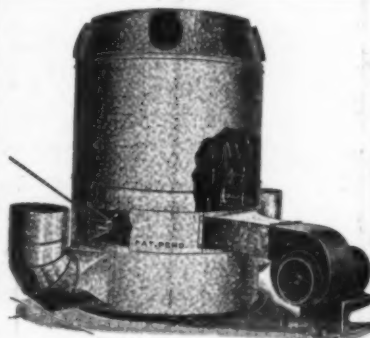


## UNIT HEATERS

THE HEAT-O LINE is built to serve every make and type of warm air furnace—cast or steel. Many notable installations have been made with the following well-known makes of furnaces:

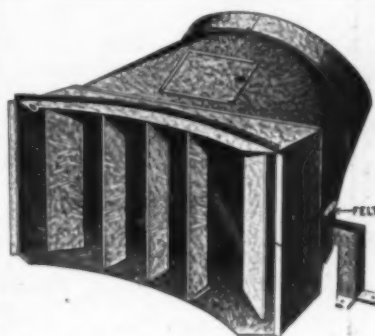
Thatcher, Utica, Robinson, International, Gilt Edge, Moore Bros., Holland, Premier, Round Oak, Mueller, Rudy, Richardson & Boynton, Cribben & Sexton, Weir, Torrid Zone, Marshalltown, Success, Colburn, etc.

Our engineering help is yours. Write for complete descriptive matter. Do this now for Fall and Winter business.



*Note how the air is blown directly against and over the heated surfaces. This is the secret of the splendid results that have been obtained with the Heat-O Booster—it picks up four times the usual number of heat units and guards against castings becoming overheated.*

**BUILT TO FIT ANY  
WARM AIR FURNACE**



*Style C Booster. A propeller furnace-fan—the equal of anything on the market because it creates less turbulence and better air distribution in the furnace casing.*

# ROBINSON FURNACE COMPANY

205-7 West Lake St.

HEATING SYSTEMS DIVISION

Chicago



## American Self-Cleaning Furnace

An Efficient Warm Air Furnace

### Highly Improved



**H**ERE is the warm air furnace that householders have been looking for. The cleaning feature insures delivery of the maximum amount of heat from the fuel burned.

There are many superior mechanical features about the American Self Cleaning Furnace which will make it a leader in your community.

#### Superior Features

1. Covered Joints Throughout
2. Large Upright Shaker
3. Duplex Shaking and Dumping Grates
4. Large Fuel Door
5. Extra Heavy Construction

*Orders received in the morning mail shipped the same day*

*Write for Catalog and Prices*

**American Foundry & Furnace Co.**

Dept. 400

Bloomington, Ill.



## Better Than Close Figures

**W**HEN you sell the new Series "C" Moncrief Furnace, you have something better than close figures to land the job.

You can offer improvements, features, and construction that no other dealer in your section can match. The Series "C" takes you out of the price-cutting class and puts you on a basis where you can land the jobs and make money.

*Write for all the particulars.*

**The Henry Furnace & Foundry Co.**  
3471 E. 49th St. Cleveland, O.

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Carr Supply Co., 412 No. Dearborn St., Chicago, Ill.  
Johnson Furnace Co., Kansas City, Mo.  
E. W. Burbank Seed Co., 29 Free St., Portland, Me.  
J. F. Conant, Railway Terminal Warehouse, Troy, N. Y.  
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Moncrief Furnace Co., Atlanta, Ga.  
Moncrief Furnace & Mfg. Co., Dallas, Texas

# MONCRIEF FURNACES





## Casing This Furnace is Easy for One Man



The SUPERIOR patented casing connection adds to your profit because of the labor time it saves. One man can case the furnace. The casing slips on into position over the stationary bolts. Just tighten the bolts and there you are!



Patented  
Casing  
Connection

Utica Heater Company  
Utica, N. Y.

365 E. Illinois St., Chicago, Ill.

Makers of Superior Pipe and New  
Idea Pipeless Furnaces.

# SUPERIOR WARM AIR FURNACE

SUPERIOR DEALERS ARE EXCEPTIONALLY LOYAL—WHY?

## Built for Speed and Endurance, Too—

STEEL construction—air tight and with immense radiating surface—this gives quick heating.

But be sure you get durable, sturdy construction along with steel. You can assure your customers of many years of real severe heating services with the

**"HOME**

TRADE MARK REGISTERED

"HOME COMFORT"  
Steel Furnaces are sold only to the trade—The agency is an assured money maker. Let us outline the Home Comfort Agency plan to you now. Write for our booklet "The Joy of Home Comfort."



NOTICE the large double doors and the solid, sound front construction on the "Home Comfort." The dome is one piece heavy gauge steel plate. The one seam is tight riveted practically welded and is in front directly over the feed door where it is subjected to the least heat.

Write today for complete catalog giving full detailed information and numerous illustrations.

**COMFORT"**

TRADE MARK REGISTERED

ST. LOUIS  
HEATING  
COMPANY

2901-11 Elliot Avenue  
St. Louis, Missouri

PITTSBURGH DISTRIBUTOR  
Wagener Bros., 3005 East Street



## Have a Handsome Sample on Your Floor!

Let us send you a Western Furnace all painted up in red, black and gold, ready for your display floor.

Now is the time to interest people—early before the fall rush begins.

Write about our attractive dealers' proposition, and special selling plan on the popular selling Western Furnace. It includes long profits for the dealer and a liberal basis of financing.

The Western Furnace has many other practical features of design which make it an unusually easy and satisfactory heater to sell. Among them are the top, corrugated to take up expansion and contraction, and heavy double grates which are easily shaken from a standing position.

Every joint possible in the Western has been eliminated. The radiator walls are made of a single sheet and the front extension is one piece with the body. The collar connections have telescopic joint, asbestos packed. The Western Furnace stays dust proof.

### Western Steel Products Co.

130 Commonwealth Ave.

Duluth, Minn., U. S. A.

Chicago Office and Warehouse: 3025 West Van Buren Street  
Phone Nevada 6712



A high quality furnace designed according to the Standard Code requirements for Standard Code installations

## The NEW FLORAL CITY QUEEN FURNACE

THE size of the casing and the relation of radiating surface to grate area have been carefully figured out according to the Standard Code and the ratings on this furnace are also as determined by the Code. That's a good selling point to make along with your Code installation—a real Code furnace.

### Here are Some of the New Features:

1. Large one-piece cast radiator with extra large opening from combustion chamber with direct-indirect draft damper.
2. Smoke and cleanout collar extend through the casing and front. Throats of feed door and ash pit extend through front and both doors and throat are disc ground to insure perfect fit.
3. Only four joints inside casing and these joints are extra deep covered joints.
4. Extra large water pan—lever shaker handle—rocker type grates—heavy ribbed two-section straight fire pot—large one-piece roomy ash pit and other improvements.

Write for our agency proposition today

## Floral City Heater Company

MONROE, MICHIGAN

CHICAGO OFFICE  
1654 Monadnock Building

DETROIT BRANCH  
4452 Cass Avenue

The latest news about the Warm Air Heating Industry is to be found in this Journal every week.

This is the only trade Journal covering this field published every week.







# The Furnace With the One Piece Radiator

---

## Vernois



It has always been the policy of this organization to make Vernois Furnaces the very best that can be made. In keeping with this policy we announce the new Vernois Line—with a one piece cast radiator.

I HAVE spent months working out the proper design for this new line and have gone to enormous expense in carrying out our ideas. The result is a furnace that is better in every way—a furnace that will meet any competition—a furnace that will prove a profit maker for you. This Vernois Line includes all the desirable features of the regular Vernois Line.

The *Round Shaker Grate* with upright shaking lever. This grate rides upon large steel ball bearings insuring easy opera-

tion. The center dump makes the removal of clinkers a simple matter. The upright lever gives greater leverage without stooping.

It preferred the *Transular Anti-Clinker Grates* may be had. No tools required for their removal. No grate rings or bolts to burn out—and the fire does not touch the grate supports at any place.

The *Lock Cup Doors* are wide and deep, making a tight fit that is permanent as well as air tight and dust tight.

---

## Mt. Vernon Furnace & Mfg. Co.

### Mt. Vernon Ill.

# Note These Features:

- 1 Vernois Furnaces are so proportioned as to produce the greatest and best performance.
- 2 The weight is properly distributed, those castings subject to the greatest strain being heaviest. Fire pots, dome, radiator, and grates are made exceptionally heavy.
- 3 OUTSIDE CASING—Is easily put on when installing. Made of heavy galvanized steel.
- 4 FRONT—All cast. Casing fastens to it and fits perfectly tight and rigid. This makes a well-finished job with a minimum of labor.
- 5 FIRE DOOR—It fits perfectly tight. Made extra large to enable firing large chunks of coal or wood.
- 6 WATER PAN—Is of ample capacity so placed that the water evaporates rapidly. This produces a balmy warm air conducive to health and comfort. Handy to fill.
- 7 ASH-PIT DOOR—Is well fitted and full width of ash-pit for convenience in removing ashes.
- 8 DRAFT DOOR—Is large and adjusted by a convenient regulator plate placed in one of the rooms above.
- 9 BASE AND BASE RING—Made in one piece with a wide casing flange.
- 10 TWO-PIECE FIRE POT—Allows for expansion and contraction. Made extra heavy and corrugated to give increased radiation service. The Lock-Cup joints are deep and are permanently sealed with asbestos cement when erected.
- 11 COMBUSTION DOME—Built extra heavy to withstand the constant strain of hard usage. The opening at the top is large enough to admit the passing of the burning gases into the radiator and yet not so large as to allow the gases to rush out unconsumed. A pocket is cast into the side of feed section so that the water coil when installed will not interfere with firing.



**Mt. Vernon Furnace & Manufacturing Co.**  
**Mt. Vernon Illinois**



*The large increase  
in Wise business  
has again proved  
Wise leadership in  
bringing out—*



WISE OPEN DOME  
CAST FURNACE

*A Better Fire Pot*



WISE 20 SERIES CAST  
FURNACE

*A Better Radiator*

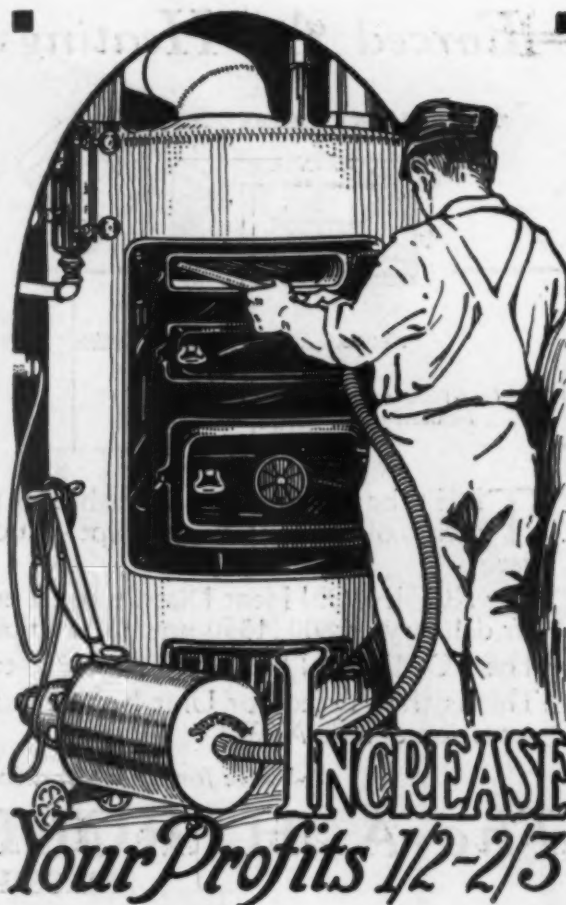


WISE STEEL FURNACE

*A Better Steel Furnace*

FIND out now all about the Better Wise Steel Furnace and the big improvements on the famous Wise Cast Furnaces—Write for special broadsides and our new Catalog No. 23, just off the press, which illustrate and describe Wise furnaces and these new improvements in detail.

**The Wise Furnace Company**  
AKRON, OHIO



THE Sturtevant Furnace Cleaner paves the way for more furnace sales and repair business. Every house owner in your community is a prospect. They all know that a clean heating plant is a coal saver. Right now—while fires are out—is the time to go after this cleaning business.

Every job will net you a fair profit. A great many furnaces will need repairs and some homes will need new heating plants—all extra profits for you. Offer this vacuum cleaning service to your prospects. The profits on the cleaning jobs alone will soon pay for the cleaner. The coupon below brings further information.



HYDE PARK,  
BOSTON, MASS.

Dept. A. A. 9-3

**B. F. Sturtevant Company,**  
Hyde Park, Boston, Mass.

Without obligation to me, send along further information and price on the Sturtevant Portable Furnace Cleaner.

Name .....

Address .....

City..... State.....

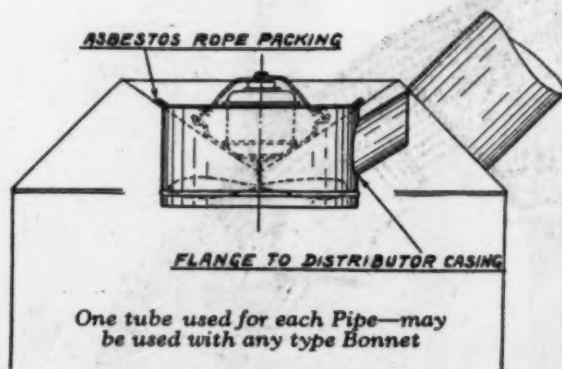
1742

## Forced Air Heating is Simple and Efficient

with the

# ROBINSON Heat Distributor

*Notice--forcing is flexible--  
directed to the pipe desired and  
as much as needed--*



THE tube sizes leading to the heater pipes are measured according to the requirements of each individual pipe—tubes ranging from three to five inches may be used.

The ROBINSON Heat Distributor is equipped with a three-speed motor, giving an air delivery of 800, 1350 and 1500 Cubic Feet of Air Per Minute.

The ROBINSON Heat Distributor is easily installed in *any* type bonnet.

This is the Forced Air Unit being used by live dealers everywhere—write for construction details *NOW!*

Write for prices and installation directions today.

**The A. H. ROBINSON COMPANY**  
MASSILLON, OHIO

## REX GAS FURNACE UNITS



*Efficient and  
Economical  
Heating Service*

THE design of Rex Gas Furnace Units insures the best type of heating service.

Rex Gas Furnace Units are made in three sizes and are used for heating Factories, and Store rooms or can be made into any kind of Gas Furnace, Pipe, Pipeless, Twin or Auxiliary Furnace.

The No. 380 illustrated has two 20-inch burners and pilot, and will heat 5 to 7 rooms.

**REX AUXILIARY GAS FURNACE UNITS  
BURN EITHER NATURAL OR ARTIFICIAL GAS AND ARE SOLD WITH OR WITHOUT CASING.**

THE agency for Rex Gas Furnace Units is a real money maker—let us show you how others make customers and profits selling the Rex line—write for complete information today.

**CALKINS & PEARCE**

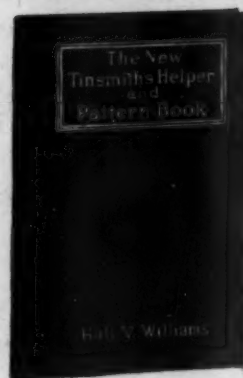
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Columbus, Ohio

352  
Pages

247  
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165  
Tables



*Flexible  
Leather  
Binding*

*Measures  
4½x5 in.*

### One of the Best and Most Popular Books

on tinsmithing and elementary sheet metal work. This is the latest edition and the contents are new excepting the chapter on Mensuration, which has been re-arranged and amplified, and possibly some fifty pages of problems and tables which are classified to the phase of the work they cover.

**This Book Covers Simple Geometry and  
Every Phase of Modern Pattern Cutting**

from the making of every type of Seam, Lap and Joint, to Conical Problems and Tinware, Elbows, Piping, Ducts, Gutters, Leaders, Cornice and Skylight Work and Furnace Fittings.

In fact an excellent all-around book for every man in the trade. Mr. Williams writes in an easy-to-read, helpful manner, giving you all the necessary details about each subject he handles.

You should add this widely read book to your collection now.

PRICE \$3.00

**AMERICAN ARTISAN  
AND  
HARDWARE RECORD**

620 South Michigan Avenue, Chicago, Ill.



# HARVEST TIME!

It is! Will it be for YOU?

Someone is going to sell and install furnaces in your territory during the next few weeks.

Someone is going to get a number of repair and replacement jobs that will be "nice business."

## The Time to Make the Harvest Yours---Is Right Now!

You can safely depend on the "Handy Pipe People" to do their full share of helping you—exactly as you can depend on HANDY PIPE to outlast the buildings you put it into—and to do its job RIGHT year in and year out.

Others have proven it many times—if you haven't, this is your chance to discover and prove to your own satisfaction that

"The Handy Pipe People Are a Mighty Good Bunch to Tie To."

## F. Meyer & Bro. Co.

Peoria

Illinois



**"GEM"**

Adjustable

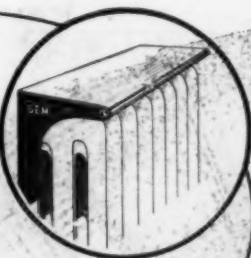
**RADIATOR SHIELDS**

Gems of attractiveness. Gems of convenience — *adjustable*. Popular sellers that meet modern needs at moderate cost.

8 popular sizes, gold-bronze or aluminum finish. Adjustable to radiator top widths, 6" to 13"; lengths, 11" to 65". Retail at \$4 to \$7. Beh & Co., Inc., 1140 Broadway, New York, N.Y.



Buy from Your Jobber



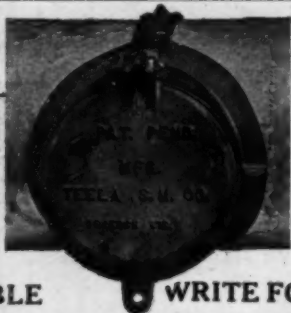
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**for STOVES-FURNACES-BOILERS**

Send for our illustrated Order Blanks

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TO INSTALLCLAMPS  
ON  
NO  
BOLTS

REVERSIBLE

CUTS  
LABOR 1/2EASY TO  
REMOVE  
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JOINT

WRITE FOR PRICES

TEELA SHEET METAL CO. — OSHKOSH, WIS.

**the NEW TEELA** BOLTLESS  
REVERSIBLE  
CHECK DRAFT

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THE CLEVELAND CASTINGS PATTERN COMPANY  
CLEVELAND, OHIO

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FIRST-CLASS  
IN WOOD and IRON

VEDDER PATTERN WORKS

ESTABLISHED  
1835

TROY, N. Y.

IRON AND WOOD

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QUINCY PATTERN COMPANY  
QUINCY, ILLINOIS

When writing mention AMERICAN ARTISAN—Thank you!

**Traveling East or West**

A restful night on beautiful Lake Erie—to or from Niagara Falls, will add enjoyment to your trip.

Palatial steamers—Unlimited facilities, including large airy state-rooms, excellent dining room service.

Daily May 1st to November 14th—Each Way Every Night between  
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Leaving 9:00 p. m., arriving 7:30 a. m. (Eastern Standard Time)

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Connections at Buffalo for Niagara Falls, Eastern and Canadian points. Connections at Cleveland for Cedar Point, Put-in-Bay, Toledo, Detroit and points West.

Our new 32-page Tourist Guide with complete information and maps will be mailed free—on request.

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WE MANUFACTURE A COMPLETE LINE OF BOLT PRODUCTS, INCLUDING STOVE BOLTS, CARRIAGE BOLTS, MACHINE BOLTS, LAG BOLTS, NUTS, COTTER PINS, ETC. ALSO STOVE RODS, SMALL RIVETS AND HINGE PINS. CATALOG ON REQUEST.

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Write to the

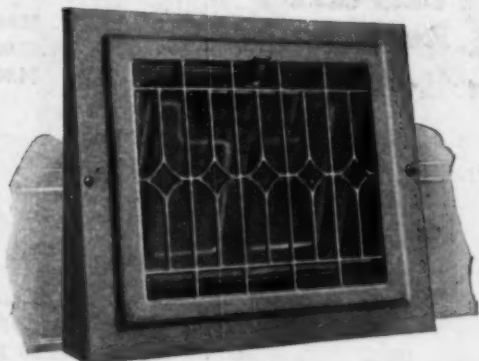
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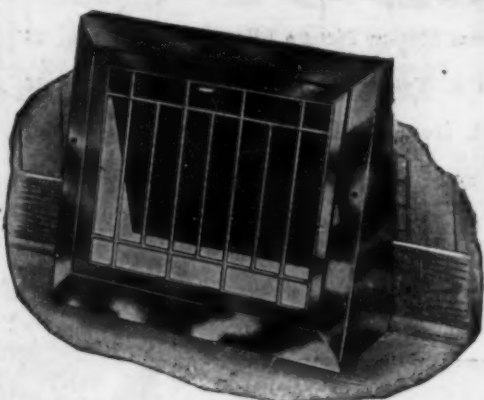
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*Mail coupon today for interesting prices and information.*

**Rock Island Register Co.,  
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**YOU** may send your interesting prices and information on Vol-Yum registers.

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**The Owner  
of This  
Home Will Have  
No Room to Waste!**

The man building the average home today needs all the room he can get. Quite naturally, when you tell him that the radiators for his home, if bunched together, would take up as much room as a flivver, while H. & C. Warm Air Registers necessary for the job could be packed in a cracker box—well, *you've sold something!*

More room, neater appearance, quicker heat, less coal, better humidity—reasons like these are behind the growing preference for warm air heating.

And H. & C. features which are making it easy for you to cash in on this preference are **MAXIMUM FREE AIR CAPACITY, BRIDGE-LIKE STRENGTH, CLEANLINESS** and a variety of **ATTRACTIVE FINISHES.**

Are you making the most of this "ammunition"?

**THE HART & COOLEY MFG. CO.  
NEW BRITAIN, CONN.**

Manufacturers of Registers,  
Wrought Grills and Radiator Enclosures  
**NEW YORK**  
501 Fifth Ave.

**CHICAGO** **PHILADELPHIA**  
61 W. Kinzie St. Real Estate Trust Bldg.  
(WESTERN WAREHOUSE AT CHICAGO)



**"The Air Capacity Line"**



Founded 1880

Published to Promote  
Better  
Warm Air Heating  
and  
Sheet Metal Work

# American Artisan

and Hardware Record

## Sheet Metal Work-Warm Air Heating

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### ADVERTISING AND EDITORIAL STAFF

Etta Cohn                      Franklin Butler                      G. J. Duerr  
J. F. Johnson                  Chas. E. Kennedy                  Frank McElwain

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CHICAGO, SEPTEMBER 3, 1927

\$2.00 Per Year

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### Dressing That Window

Sheet metal and warm air heating contractors have labored entirely too much under the impression that the products and services with which they work do not lend themselves readily to display. This is a fallacy that has kept the sheet metal and warm air heating industries from taking their rightful places in the scheme of service rendering industry today. One of the objects which AMERICAN ARTISAN hopes to accomplish is to show its readers that sheet metal and warm air heating does lend itself easily to many kinds of displays, and that progressive contractors in both industries are doing it every day.





## The unseen fire\* from which you can protect your customers

**I**N industries, in homes—in all places where sheet metal is used—Rust-Fire is burning. It is a slow, treacherous fire that invariably burns unseen until the installation is too far gone to be saved.



**Ingot Iron**

This triangle is your assurance that products bearing it are made with the skill, intelligence and fidelity associated with the name "ARMCO" and hence can be depended upon to possess in the highest degree the merits claimed for them.

Your customers do not want the trouble and expense that accompanies Rust-Fire. And you will do everything in your power to help them avoid it. Why not use ARMCO Ingot Iron, then, the iron that is made pure especially to withstand this deceitful invader?

But "customer satisfaction" is not the only return you get from using ARMCO Ingot Iron. For pure iron is soft, yet tough. It forms easily to the most complicated designs. Moreover, it conserves your men's energy, and at the same time lowers your operating costs.

You wouldn't expect much more from sheet metal, would you?

**ARMCO Distributors' Association of America**  
Executive Offices, Middletown, Ohio

\*Rust... Fire... The only difference between rust and fire is time—both are oxidation. You can feel and see the fire produced by rapid burning. But when metal rusts the process is too slow to be seen. Rust is the ash of this fire.

**ARMCO** **INGOT IRON**  
The Purest Iron Made

Say you saw it in AMERICAN ARTISAN—Thank you!

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# Give Your Furnace a Good Shake



WE all know that a furnace needs a good shake daily to eliminate clinkers and stir up the coals preparatory to adding fresh fuel. A furnace must also have a good shake in its installation, and by that we mean a square deal, to insure good results.

The National Warm Air Heating and Ventilating Association urgently advocates the use of the Standard Code as prepared in accordance with the findings of the Research Bureau of the University of Illinois, and we wish, in conjunction, to advocate the proper use of furnace cement, believing that the combination of the two will assure a one hundred per cent installation and a satisfied customer, which is the end in view.

In a series of monthly articles, we will explain that clean cup joints are necessary for proper adhesion of cement; air pockets should be avoided by using sufficient cement and that the utmost care should be taken in the initial firing of the furnace. These facts when explained will be of considerable benefit to the practical furnace installer as well as the furnace manufacturer.

**THE ARMSTRONG COMPANY**  
**DETROIT** **MICHIGAN**

Manufacturers of

**"THARCO" ASBESTOS FURNACE CEMENT**

Look for  
the directions on  
our cans.

*"In the Interest of  
Better Warm Air Heating"*

Look for our  
article in the  
October first issue.



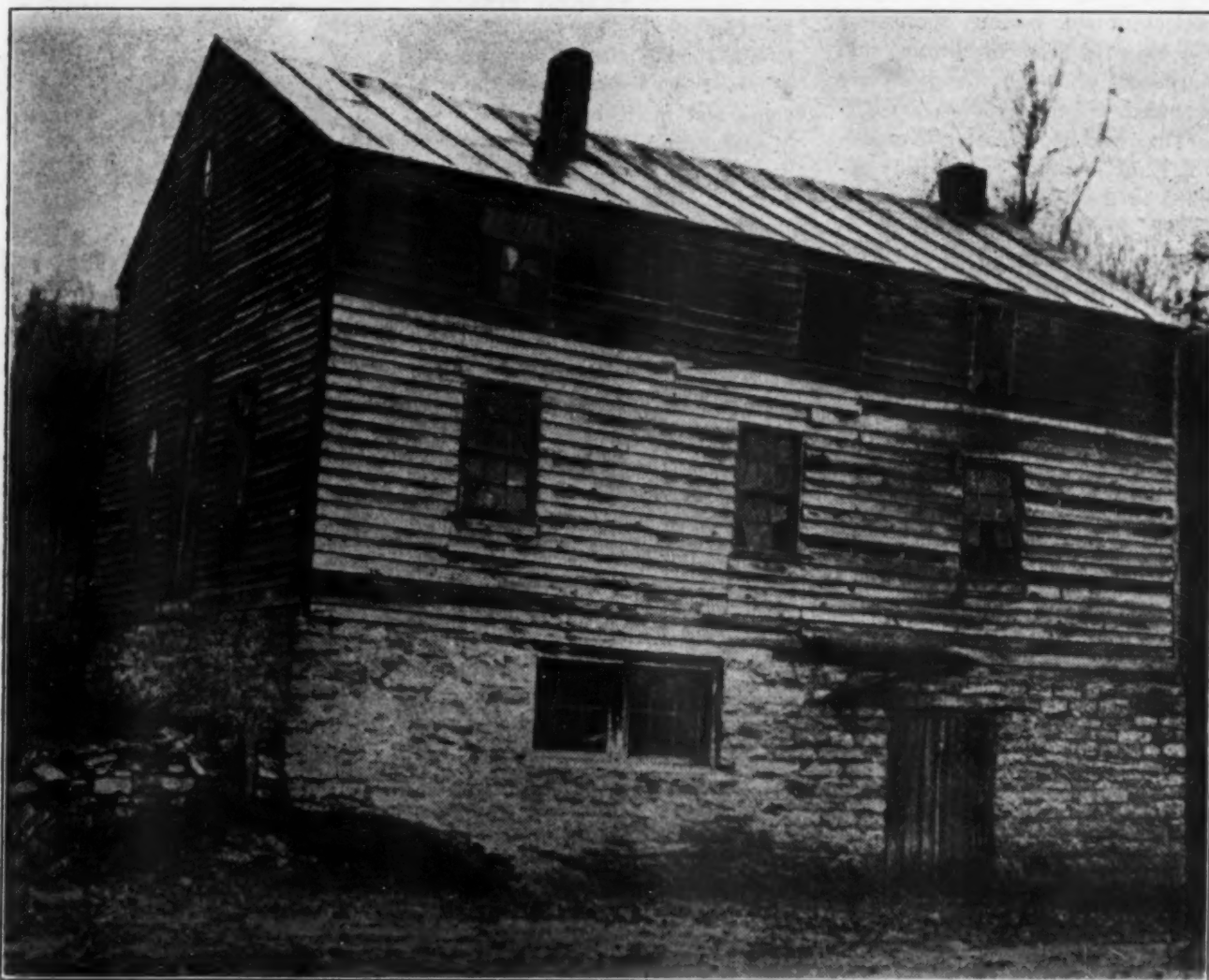
# American Artisan and Hardware Record



Vol. 94

CHICAGO, SEPTEMBER 3, 1927

No. 10



The Old Grant Tannery Roofed with Sheet Metal and Still Standing in Point Pleasant, Clermont County, Ohio. Jesse Grant, Father of U. S. S. Grant, Set Up in Business in This Tannery Early in the Nineteenth Century. The Future General and President Was Born Nearby in a Two-Room Cabin

## A Jobber Comments on Trade Extension Committee's Master Brand

*Refers to Address by Mr. Patterson  
of Sheet Steel Extension Committee\**

**T**HE proposition of the return to the heavier and properly zinc coated steel sheet is much to be desired by every one concerned—that is, the producers and smelters of zinc ore, the makers of steel

sheets, and the users of this very essential product. Since you honored me three years ago by placing me on your galvanizing committee, I have been especially interested in this phase of the industry, which is

so closely related to the producing and smelting of zinc ore.

Mr. Patterson has presented, in a very able and interesting manner, the activities of the Trade Extension Committee.



I believe we are all agreed on the proposition that a properly and heavier zinc coated sheet is essentially necessary to the continued development and prosperity of the zinc industry.

We understand it is not practical for all gauges to carry the same weight of zinc coating, because of the varied degrees of forming and purposes for which the sheets are intended.

The so-called Master Brand—"T. E. C."—can be successfully applied to the V-crimped and corrugated sheets used principally as roofing and siding, culverts, etc., and it is on this branch of the industry that we should, for the present, center our efforts because it is entirely practical to do so and within the realm of possibility to achieve complete success in ultimately establishing the Master Brand for this type of sheet, which will earn for it the recognition which it rightfully deserves, because of its merit as the best and most enduring product for the purpose.

To accomplish our purpose, however, will—because of the findings of the Trade Extension Committee and other data and facts with which we are all familiar—require much concerted effort, coöperation, intelligent planning, and the expenditure of funds consistent with the objectives in mind.

We should, I believe, coöperate with the Trade Extension Committee as far as practical and possible, and we can without doubt profit greatly by their experience. Unless we do proceed along these lines the galvanized steel sheet will probably suffer further decline in quality, use and popularity. The effort should, I think, be made to halt the decline to which Mr. Patterson has referred. We must build back into the industry the high position which the galvanized sheet formerly held.

#### **Favors T. E. C. Brand**

As jobbers of steel warehouse products, the company which I represent feels confident that the industrial trade can be successfully sold on the T. E. C. Brand, espe-

cially as applied to roofing products. Also we believe the jobbers of the heavier steel products would be favorable to the idea, as their sales are largely confined to the heavier gauges—No. 22 to No. 26 and heavier. Those dealers who handle No. 28 or No. 29 gauge will probably continue to do so until the trade now using this class of roofing are educated to a realization of the full value and merit of the T. E. C. Master Brand.

We must not lose sight of the

fact that prepared roofings of constantly improving types and kinds have some merit and have won a place as established products. We, too, must improve our product if we are to hold our own, and I believe the Institute will rise to the occasion and meet the condition and successfully solve the problem.

\*Excerpts from an address by Roy De Stebler, sales manager, Beck & Corbitt Company, St. Louis, delivered at a recent convention of the American Institute. The address of Mr. Patterson referred to appeared in a previous issue of American Artisan.

## **Process of Hardening Copper of Ancients Not a "Lost Art"**

*Fallacy of This Pointed Out by William G. Schneider Foundation of U. E. Society*

**H**OW the ancients hardened copper is a mystery to many otherwise competent scientists who classify this process among the "lost arts." Every year, according to the Copper and Brass Research Association, thousands of dollars are spent in an effort to re-discover this supposedly forgotten formula.

That there is no justification for the popular belief that the early process of hardening copper has become a "lost art" is pointed out by William G. Schneider, metallurgist of the association, in a paper just prepared for the Engineering Foundation of the United Engineering Society. He declares that "present-day metallurgists not only understand how the ancients hardened their copper and bronze, but also know how to produce copper and bronze products that are even harder than those left to us and which represent the evidence of the so-called lost art of hardening copper."

It is pointed out that the ancients produced cutting edges on swords, daggers, knives and other implements by hammering or cold-working the metal. Early metal workers used this method to harden both bronze and copper implements. The implements were often heated in open fires, resulting in the formation of considerable copper oxide

which alloyed with the copper and hardened it. Misguided individuals who claim to have rediscovered the art of hardening copper commonly make the mistake of heating it in a forge. In this way the metal becomes saturated with copper oxide that combines with the copper to form a much harder and more brittle product.

Two methods of hardening copper are regularly practiced today, just as they were centuries ago. One of these consists in alloying the copper with some other metal or several other metals, such as zinc, tin, nickel, cadmium, chromium, cobalt, silicon, aluminum, iron, beryllium and arsenic. The other method is to cold-work the metal or copper alloy. In fact, says the paper, it is possible to work the metal to such a stage of hardness that a slight amount of additional work will cause it to break. All copper hardening may be credited to either of these methods, or a combination of the two.

Microphotographs of an ancient copper spear-head indicate that it is extremely hard and that apparently this hardness was obtained by cold-working.

Mr. Schneider points out that while it is possible to make scissors, knives and other cutting tools of

copper, such implements under ordinary conditions offer no advantages over tools made from steel. Occasionally, however, it becomes necessary to use copper or bronze tools, such as knives. Bronze knives are virtually essential in a powder plant or other establishment where sparks must be avoided.

"Not only do many persons spend a short while endeavoring to rediscover an art that never was lost, but some of them devote a whole lifetime to this effort. The tragedy, or rather, the denouement, occurs when they have evolved a hard copper. They next endeavor to find some use for it and then learn that, unless it has some special properties, no market exists. Copper wire, hard drawn, has a tensile strength of about 65,000 pounds per square inch and an elongation in 10 inches of about 1 per cent, with a conductivity of about 97 per cent. This affords some basis on which to work when endeavoring to develop the hardening of copper. If, for example, it were possible to harden copper so that the tensile strength were materially increased above that just stated, without reducing the conductivity, a worthwhile discovery would be made.

"Some recent methods of hardening copper by alloying have, to a certain extent, come about as near to actually 'tempering' copper as would seem possible. In these methods the metal silicon plays a most important part, because it forms silicides with other metals which in turn form eutectics (metals easily melted) with the copper. The deoxidizing effect that silicon by itself exerts plays no unimportant part in finally allowing the metal to be worked and by heat treatment to develop a high strength, with a relatively high conductivity. This latter, however, is considerably below that of pure copper and second only, speaking of alloys from the standpoint of both strength and conductivity, to those of copper and cadmium. Alloys of copper with cadmium give, for a stated conductivity, higher strengths than those with silicon."

#### World Zinc Conditions as of August 1, 1927

The opening days of July brought no relief from the fears which had marked the end of June and, indeed, the down trend in zinc continued until July shipment touched as low as £27 10s. At one time it did look as though better times were in store and there was a slight recovery, but the June statistics were not at all favorable and prices slipped back again to the lowest. It was not until mid-month that the tide really turned, but since that time there has been a steady increase in confidence.

The causes for this reaction are not far to seek. We have for some time past maintained that zinc was priced at below its intrinsic worth, the chief causes for this state of affairs being over-production in America, slight let-up in the demands by rollers in Europe, which naturally caused apprehensions of increased offerings of slab zinc on the London market, and lastly but by no means least, the extraordinary sympathy between lead and zinc. As regards the first of these, apparently smelters in the United States have put their house in order, as evidenced by the much better showing made by the mid-July statistics. Another point we have stressed recently is that the first desideratum was that smelters in the states should prune production to a point approximating with domestic consumption, and the mid-month figures reveal that this has, to all intents and purposes, been accomplished, so that it is to be hoped that the final figures for July will reveal a substantial decrease in stocks.

The third cause for uneasiness also appears to have been exaggerated. It is true that rollers, especially in Germany, were not operating at the same capacity as at the beginning of this year and that in the border districts they were meeting with such keen competition from Belgian sheets that local reductions had to be made, but it has to be remembered that many of the German works increased their ca-

capacity during the last half of 1926 and the early months of 1927, and it is doubtful whether the total consumption was appreciably below that of a year ago. Apparently, the slight slackening in takings by rollers was only a seasonal matter, and with the revival in the building industry in Germany rollers are once again busily occupied and the time required by them for delivery of new business is gradually extending again. Stocks of slab zinc in their hands are reported to be very light and a good demand would seem to be assured for some time to come.

Belgium appears to be in much the same state as a month ago, but she will also feel the benefit of the increased demand for sheets in Germany, even if her own domestic consumption does not also pick up and there should be no fear of any aggressive selling from that quarter.

In Britain the galvanized trade has struck a dull patch. Relying as it does on India for such a large proportion of its orders, the absence of that country for any length of time is severely felt, and Indian business has not been on the scale which British galvanizers have grown accustomed to look for during the past two months. This may still be remedied, as it is notoriously a case of either a feast or a famine as far as buying of galvanized sheets is concerned, but until there is a much better influx of orders, home consumption is bound to be somewhat disappointing.

Our estimate of world stocks of zinc as of August 1st is as follows:

	Metric tons
United States .....	35,700
Canada .....	2,700
Australia (including afloat) .....	2,800
Germany-Poland .....	6,500
Belgium .....	3,500
France .....	1,600
Great Britain .....	1,700
Scandinavia .....	200
Far East .....	500
Elsewhere .....	1,500
Total .....	56,700



## Cook County Sheet Metal Club Outing Proves to Be Delightful Party

*Held at St. Paul's Park, Morton Grove, Illinois, August 25—About 100 in Attendance*

**T**HIRTY-TWO to twenty-one are the figures which spell defeat for the salesmen in the baseball game between the salesmen and the contractors at the outing of the Cook County Sheet Metal Contractors' Association. The event was held at St. Paul Park, Morton Grove, Illinois, August 25, 1927.

Five innings were played, which

were four too many for the salesmen. The salesmen made nine runs in the first inning, while holding the contractors to seven runs. The second inning they fared rather badly, Rudy Guenther being the only man to score.

The salesmen, however, were not so spry either in the second inning, their score being only increased by

three runs during that evening, made by Hinsch, Trinier and Nixon.

In the third inning, however, the contractors assumed the ascendancy, making four runs to the salesmen's three.

The fourth inning the contractors ran away completely with the salesmen, making fifteen runs to the

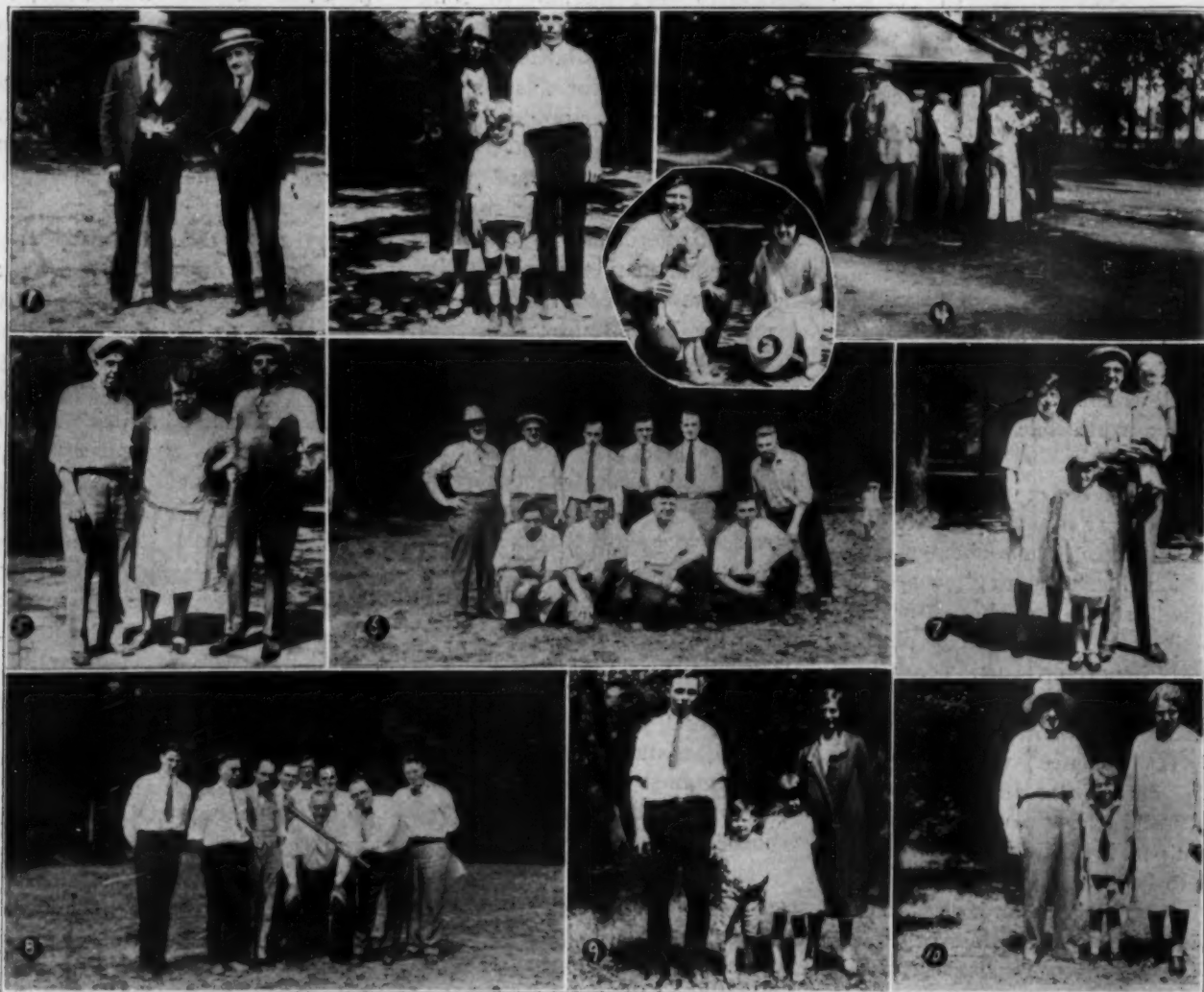


Figure 1—Howard Mason and Dave Farquhar. 2—Mr. and Mrs. A. R. Gibb and their son, Howard. 3—Mr. and Mrs. Mike Reif and their little daughter, Frances. 4—A Very Popular Place During the Entire Outing. 5—E. C. Deichman and his parents, Mr. and Mrs. Henry Deichman. 6—The Victorious Contractors Just Before the Fatal Game in Which They Trimmed the Salesmen 32 to 21. Left to Right, Standing, Becker, Guenther, Fleischman (Umpire), W. H. Kinney, Bert Kinney, and Bothfelt. Squatting, Left to Right, Hall, Stahler, Reif and Larsen. 7—Mr. and Mrs. R. H. Guenther and their two children, LoRaine and Raynard. 8—The Down Trodden Salesmen. Left to Right, Bowman, Gibb, Parkins, Hinsch, Petersen, Trinier, McElwain, Nixon and Mackin. 9—Mr. and Mrs. R. E. Larsen and their two children, Marion and Tommy. 10—Mr. and Mrs. William Wahler and their little daughter, Ruth.



salesmen's six and, of course, poor Julius Fleischman, umpire, and Sidney Arnold, the scorekeeper, came in for a great deal of razzing and attacks upon their honesty and integrity.

At the fifth and final inning of the game the salesmen were completely at sea; they were stopped stone dead. The contractors got in

committee compelled a halt at the last half of the fifth inning. Of course the salesmen were so vastly outplayed that it was perhaps fortunate for them that the game was called. It produced good excitement and the spectators enjoyed the game as much as the players themselves.

But the ball game was not the

outing of the Cook County Sheet Metal Club was a success from every angle.

Those contributing to the prizes are as follows: The Benjamin Wolf Company, cash; the Casper Tin Plate Company, cash; C. S. Davis Company, cash; Milwaukee Corrugating Company, cash; Colburn Heater Company, cash; The Lennox Furnace Company, cash; AMERICAN ARTISAN, cash; The Republic Metalware Company, merchandise; Barnes Zinc Products Company, merchandise; Maplewood Machinery Company, merchandise; International Heater Company, cash; Aeolus-Dickinson Company, cash; Hennish Brothers, cash; Furnaces & Sheet Metals, cash; General Acceptance Company, cash.

#### Ryerson Issues New Small Tool Catalog

Believing that the buyers of small tools and machinery are interested in complete information in handy convenient form, Joseph T. Ryerson & Son, Inc., Chicago, have issued a new catalog on metal working small tools and machinery.

The new book is unique in that it covers both the small tool and machinery fields and combines with it a price supplement. The catalog gives the list prices and specifications. The supplement provides the f.o.b. points, discounts, and other price information. This saves the buyer considerable time in determining the price of tools in which he is interested.

The Ryerson Company has always stood firmly behind all machinery and tools it sells. However, this catalog prints an unusually broad guarantee on the small tool line, which permits the customer to pass on his requisition to the company and then return any tool, without question, which does not completely meet requirements.

This catalog is free to all those who specify or buy small tools and machinery, and should be especially interesting as the Ryerson Company maintains offices and stocks at widely separated points.

Runs	1	2	3	4	5	6	7	8	9	Total
W.H. Kinney	1		1	11	1					14
Bathfelter	0		1	11						12
Reif	1			1	1					3
B. Kinney	1			1	1					3
2 B	1		1	11	1					14
Guenther	1		1							2
C	1	1		11						13
Stahler					1					1
C.F.	0		0	0						0
Hansen	1			11						12
R.F.		0								0
Becker	1		1	11	1					14
S.S.	7	1	4	15	5					32
Hall										
Total										32

Runs	1	2	3	4	5	6	7	8	9	Total
GIBB	11									11
Bowman	11			1	1					13
MacKinn	1			1						2
Hirsch	0	0				1	1			2
Petersen	0		0							0
Trainer	1									1
Parkins	1	1								2
C.F.	1									1
Nixon	1									1
McElwain	9	3				0				12
Total										21

Score Card Showing Step by Step How the Sheet Metal Contractors of the Cook County Sheet Metal Club Nosed Out and Triumphed Over the Salesmen at the Recent Outing. The Contractors' Scores are Shown on the Left

five runs while the salesmen made no runs at all.

Star players for the contractors were W. H. Kinney, with five runs; Rudy Guenther, with five runs, and Mr. Hall, with five runs. Baby Wampus stars for the contractors were Mike Reif, with three runs; Bert Kinney, with three runs; Ed. Stahler, with four runs, and Mr. Becker, with three runs.

Star men for the salesmen were Gibb, with three runs; Bowman, with four runs, and Nixon, with three runs.

The game was not called, however, because the salesmen were all in. Rather, there were so many other events, such as races for the women and children, that the picnic

only event of the day. The park where the picnic was held is amply provided with tables for the convenience of the outers. By noon the picnic grounds were well filled with all makes of automobiles and the sheet metal contractors and salesmen were enjoying their dinners in the open with their families.

After the ball game was over the races were staged. Here everybody got prizes, even the losers. Nor was the little house with the clinking glasses neglected, with plenty of liquid to quench the thirst of all. Ice cream and pop for the children was also had.

In the evening an orchestra was on hand to provide music for the dancers. Thus the second annual

# Describing Method of Making Pattern for Roof Jack

*Pattern Admittedly More for Practice Than That Actually Needed*

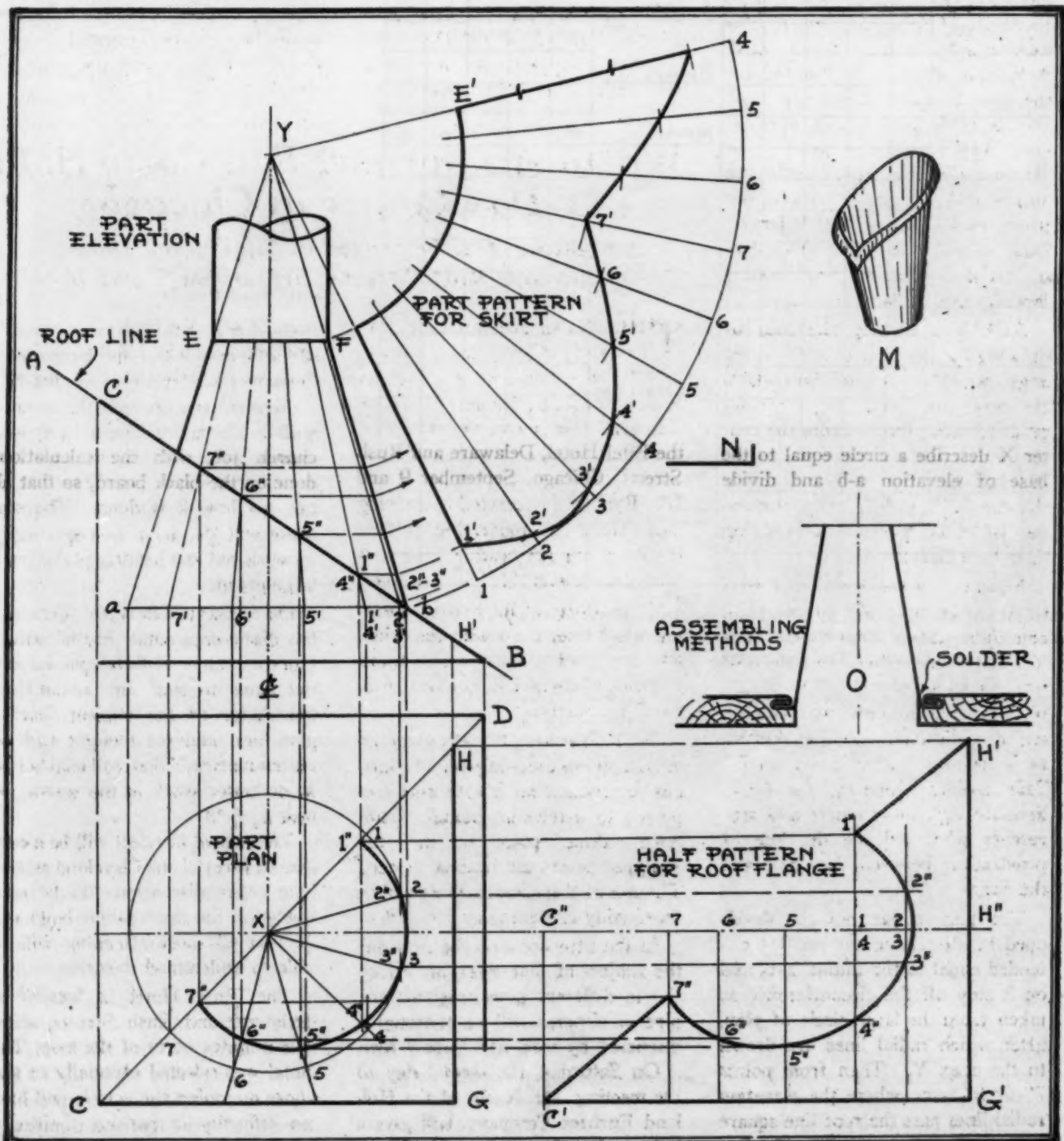
By O. W. KOTHE, Principal St. Louis Technical Institute

**N**OW and then a workman desires to know how to develop a roof jack that sets on the hip of

a roof, and so I am including two drawings in this series showing how this can be done, one by the conical

line method and the other by triangulation.

Now such fittings are quite im-



Patterns for Roof Jack on the Hip



practical, since it is always desirable to maintain the hip in a continuous length and never cut a rafter. In most cases it is always a simple matter to move a roof jack over a few feet, even if an elbow off-set must be used. So developments of this kind are more of a problem for practice than actually needed.

The first step is to draw the roof line A-B and then pass a vertical center line X-Y through it indefinitely. The roof line A-B can be made any bevel, although in this case it is made to a third pitch. After this we draw the outline for the cone to pass through the roof line, as a-b-Y, giving it the flare desired and also the length. The diameter of the upper stack E-F can also be made to suit conditions, but the flare of the jack itself is largely made so as to enable pushing pipes up from underneath and causing them to bind without riveting.

After this develop the plan by drawing the line C-D to a 45-degree angle, which is for a hip line where the eaves are square or at 90 degrees to each other. From the center X describe a circle equal to the base of elevation a-b and divide this one-half, as 1-7, into any number of equal parts and radiating lines to the center X.

From points 1-2-3, etc., to 7 erect lines to the base a-b of elevation and then radiate them to the apex Y. Where these lines cross the roof line, as in points 1"-2"-3"-4"-5"-6"-7", we drop lines into plan to cut off radio line of similar number as in points 1"-2"-3", etc., to 7". This enables sketching the heavy lines through these points and represents what will be the line of penetration between the jack and the flange.

The pattern can now be developed by describing the arc 1-4 extended equal to the radius Y-b, and on it step off the circumference as taken from the large circle of plan, after which radial lines are drawn to the apex Y. Then from points 7"-6"-5", etc., where the elevation radial lines pass the roof line square horizontal points to the side line b-F. With dividers set to Y as cen-

ter and each of these points of radius sweep them into the stretchout which establishes intersections, as at points 1'-2'-3'-4', etc. Sketch a line through these intersections and you have the pattern for the skirt of roof jack.

Now if the pattern for the flange is desired, this can be developed by picking the girth, as H'-2"-1"-5"-6"-7"-C', and transferring it onto the line H"-C" at the right of the plan. From these points draw stretch out lines and then from each point as 1"-2"-3"-4"-5"-6"-7" and C of plan project over horizontal lines to cross those in stretchout of

similar number and this gives the intersections for tracing the outline for opening.

In assembling these parts the flange portion is bent up as at N, while the skirt is rolled up and seamed and then the edge is turned as in sketch M. After which they are hooked together and double-seamed, as at O, where the outside is well soldered. This makes a secure job and also is water tight. Edges must be allowed to make this connection as well as any others that would be necessary, especially along the hip of flange and the seam of the skirt.

## Warm Air Furnace Fan Co. to Hold 2-Day Course in Chicago

*Meeting Will Be Staged in Eitel Hotel, Delaware and Rush Streets, September 9 and 10*

THE Warm Air Furnace Fan Company, Cleveland, Ohio, under the direction of its Chicago branch manager, Robert O. Brannan, will hold a two-day school at the Eitel Hotel, Delaware and Rush Streets, Chicago, September 9 and 10. Everyone interested in learning more about the application of fans to the warm air heating system is invited to attend this short course.

The first day of the two-day meeting will be taken up with the scientific explanation of the Standard Furnace Code and its conversion to the B.t.u. method.

Dr. E. Vernon Hill will speak on drafts, air conditioning and the various air measuring instruments employed to determine actual conditions taking place in the fan equipped warm air heating system. The use of these instruments will be thoroughly explained by Dr. Hill.

In the afternoon of the first day the subject of pipe sizes, air velocities in different pipes, register and pipe efficiencies will be thoroughly discussed by men who know their

On Saturday, the second day of the meeting, Mr. Racht of the Holland Furnace Company, will give a talk on the warm air heating industry and its place in the American

home. Mr. Racht is full of vim and enthusiasm and will have something well worth while listening to.

Another feature of the course will be the laying out of a typical church job, with the calculations done on the black board, so that all can see how it is done. The students will also have an opportunity to work out the heating plans for a large garage.

On Saturday afternoon there will be discussions and examinations. Questionnaires will be passed out not alone to test the amount of knowledge of the student, but to give him food for thought and research materials that will enable him to do better work in the warm air heating field.

This school in effect will be a condensed form of the Cleveland school. The entire discussion will be conducted in the most simple language, so that all those attending will be able to understand it easily.

The Eitel Hotel is located at Delaware and Rush Streets, about five minutes north of the loop. This hotel was selected especially so that those attending the course will have no difficulty in parking their cars within a block of the hotel without fear of getting a "ticket."



## Random Notes and Sketches

By Sidney Arnold

"The essence of humor is sensibility; warm, tender fellow-feeling with all forms of existence."—Carlyle.

The prospects of seeing the warm air heating golf match between Les Taylor and Jack Stowell opposing Art Lamneck and Fred Richardson take on a brighter hue than they have had for some time. One clever wit in the warm air heating industry has figured out a way to meet the expenses of Les Taylor and Fred Richardson.

James Charles Allen, writing from the Justman Sheet Metal Works, Dubuque, Iowa, says: "In regard to the Allen-Miller controversy, I will be willing to meet Mr. Miller, Jr., of Durand, Illinois, in Chicago at a hog calling contest at the Coliseum any time, the proceeds of the contest to be used to defray the expense of Les Taylor's trip to Columbus, Ohio, to meet Art Lamneck at golf. The only stipulation on my part is that Alfred C. Selvig, of the Northwestern Stove Repair Company, Chicago, to act as general manager of the contest, with a certain well known gentleman from Dowagiac, Michigan, to have charge of the advertising. Jack Stowell is to be judge, assisted by J. C. Miles and R. W. Menk.

"With this bunch of judges and a clear day for golf at Columbus, this should draw a full house, aces high on any kind of a jack pot."

(Signed) James Charles Allen,  
Chief hot air hog caller by  
appointment.

In selecting his judges, I am inclined to believe that Mr. Allen overlooked the fact that Jack Stowell is to be one of the players, and therefore could not very well be a judge. That would be placing too much temptation in the path of one so young. Besides, this arrangement may not be agreeable to Art Lamneck and Fred Richardson.

Of course you all know Fred Bishop, Detroit, of the Michigan Stove Company, but perhaps it has not dawned upon you as yet that

Mr. Bishop is a singer of some note-s, be they flat or otherwise it is not for me to say. Any how as a singer Mr. Bishop is constantly being called upon to appear before large crowds of people whom he is to delude with his vocal calisthenics.

Well, just the other day I saw an advertisement containing a testimonial which ran something like this:

### "They Bring Home the Bacon"

"After a strenuous period of rehearsal or the more exacting moments of the performance itself, my voice is always more or less at a tension which must be relaxed—soothed, and I find that nothing answers the purpose better than El Cordo (*Spanish for rope*) cigars. Their mild and fragrant aroma eases the strain just placed upon my vocal cords without the slightest injury. Indeed, after smoking one El Cordo, I am renewed and invigorated, with a fresh timbre in my voice which I am sure no other cigar could impart. I attribute much of my success to El Cordo cigars. Without their stimulating effect upon my voice, I doubt whether I would have ever been able to have reached the preëminence of vocal calisthenics to which I have attained"

Perhaps James Charles Allen and O. Miller, Jr., of Durand, Illinois, had better engage Fred's services at once or take to smoking El Cordo cigars before they pull off their contest at the Coliseum.

\* \* \*

O. E. Hutchison of Louisville, Kentucky, was complaining the other day that he was forced to build a new home. And when I asked why he figured he needed a new home, here's what he said:

"I can't afford it and do not need it, but if the children are to enjoy the same advantages as their friends they must have a better home to stay away from. My wife needs it

also. Since she has become a sports-woman she must have a larger and finer establishment to neglect if she is to hold her own at the Country Club. There is no prestige in our town in being away from the modest dwelling in which we have been so happy. At the minimum, we should have a fifty-thousand dollar house and a four-car garage. A two-car affair does not look substantial when standing empty these days. Nearly everybody who is anybody drives away in four or five cars before luncheon and returns just before breakfast.

"If we are to maintain our position we must either build a house three times as large as we need or move into an apartment one-third as big as our present home."

\* \* \*

### The Grammar Situation in Graham County

From the Moreland (Kan.) *Monitor*—"I have been criticized quite a little by some of the town smart alecks for using poor grammar. Now I have three good reasons for this. In the first place, I don't know any better. Second, half of you wouldn't understand it if I did use it. Third, if I did speak and write correctly I might be managing some big New York paper at a large salary and you farmers would lose the best editor in Graham County."

\* \* \*

### Nature Study

"A little bird told me what kind of a lawyer your father was."

"What did the bird say?"

"Cheep, cheep."

"Well, a duck told me what kind of a doctor your old man was."

\* \* \*

"Love me, Jimmy?"

"Wild about you, honey."

"Honestly, Jimmy?"

"Sure, honey; why?"

"Then why doesn't your chest go up and down like the men in the movies?"

\* \* \*

We were recently told the sad case of a Scotchman who became engaged to a girl who got so fat he wanted to break off the engagement. But the girl couldn't get the ring off, so he had to marry her.

# Chicago Fan-Furnace Convention Proves Successful in Every Respect

*Men Attending Meeting in New Sherman Hotel Gain Thorough Understanding of Forced Warm Air*

**F**EATUREING the latest step of progress in the new era of warm air heating—the scientific employment of forced warm air—the 2-day convention of the heating systems division the Robinson Furnace Company, Chicago, got away to a good start in the new Sherman Hotel, Chicago, Tuesday, August 30.

There were present warm air furnace dealers, salesmen and manufacturers from many sections of the country, all eagerly seeking to learn from trained engineers what the forced air principle is, and how successful its application has been.

In his opening remarks, Harvey Manny, of the Robinson Furnace Company and President of the Western Warm Air Furnace &

Supply Association, extended to those present a most hearty welcome. He also explained that his faith in the future of the forced warm air principle had led to the merger of the former Heating Systems & Supply Company with the Robinson Furnace Company as the heating systems division of that company.

R. W. Menk, the originator of the forced warm air heating principle and one of its most ardent sponsors today, took charge of the meeting following the introductory remarks of Mr. Manny.

Mr. Menk went into considerable detail on the purpose of the meeting, stating that that purpose was to give all men a grounding in

the fundamentals that would aid them in their understanding of it, thereby putting them in a position to widen their scope of activity in the warm air heating field.

Mr. Menk paid a very high compliment to his "friendly enemy," Mr. J. C. Miles, of the Warm Air Furnace Fan Company, Cleveland, whom he introduced and who spoke briefly on the hardships he had experienced in the formative years of forced, positive warm air heating. Mr. Miles, in speaking of the personnel of the forced air heating, said that that industry was not going into the alley to get its men. It is seeking men of intelligence enough to take the education required to enable them to figure heat



Group of Furnace Manufacturers, Dealers, Salesmen and Guests in Attendance at the Warm Air Fan Furnace Convention of the Robinson Furnace Company, Held at the New Sherman Hotel, Chicago, August 30 and 31





Exhibit of the Heat-O-Line of Fans, Boosters and Unit Heaters Staged at the Two-Day Fan-Furnace Convention of the Robinson Furnace Company, Sherman Hotel, Chicago, August 30 and 31

losses scientifically. Such men, he explained, will in a short time be well able to place forced air where it rightly deserves to be.

Mr. Miles then went into a partial analysis of the reasons for trouble arising in a gravity warm air job. He said there were two kinds of resistance encountered; namely, frictional and cold air in the warm air ducts which prevents circulation until removed. Of the two cold air is the worst offender. Here he explained that the only way the cold air resistance can be removed is by allowing the furnace to warm the air in the pipes and start circulation in this way, or to build up a pressure behind it by mechanical means and blow it out. The former method is slow and uncertain, while the latter is immediate and positive.

H. D. Walker, an associate of R. W. Menk, followed Mr. Miles with a short biography of the attempted application of forced air to the warm air system. He pointed out

that as far back as 1908 Mr. Menk conceived the idea of putting a fan on a warm air furnace. This attempt met with little success, not because the principle was not sound, but because, as he explained it, the public and the furnace manufacturers were not ripe for it.

In 1912, 1915 and in 1920 it was tried again with little more success than that which had attended the initial effort. But now the warm air heating industry is taking the idea, and it will not be long before it will have found its place definitely in the industry, according to Mr. Walker's observation.

After this talk, the demonstration of the various fan and boosting devices took place, followed by recess for luncheon.

Mr. Keckeisen, merchandising expert of the Robinson Furnace Company, gave a very spirited address on "The Unusual in Advertising." He pointed to the necessity of incorporating the unusual into any advertising program, in order to at-

tract attention.

In other words, the trend in advertising today is to "let the buyer do his own thinking"; to attract the buyer's attention to the results to be obtained from the ownership of that product, rather than to belabor him with details of superlative construction. The buyer is interested in results which bring him satisfaction, while the construction details from the buyer's standpoint are of secondary consideration, although they should not be neglected by the retailer himself.

Following this talk, there came an address by Platte Overton, heating and ventilating engineer, for the Herbert H. Davis Company, Chicago. This address by Mr. Overton was in itself well worth attendance at the meeting. It will be published in full in a later issue.

E. W. Petersen of the American Blower Company, Chicago office, related many of the experiences his company has encountered and what that experience has taught



them about the Heat-O line. Many questions were asked of both Mr. Overton and Mr. Petersen, all of which added to the fund of useful knowledge those in attendance carried away with them.

Wednesday morning the meeting opened with an address by L. Dean Fowler, of the General Electric Company. Mr. Fowler's talk centered, of course, around the importance of the motor to the fan. "Each motor designed has some special purpose," said Mr. Fowler, "and it is up to the motor manufacturer to see to it that the right motor for any given job is designed to do that particular kind of work. The manufacturer must do this if he has any regard for his own future business life and expansion."

The motors, of course, which are used on the Heat-O booster are specially designed for the work they are to do. It was Mr. Fowler's opinion that the fan for furnace work should be entirely enclosed. Other factors to be considered are the length of life of the brushes, the quietness with which the motor runs and the frequency of the current from which the motor is to operate. The frequency on the line determines the speed of the motor.

This address was followed by a complete analysis of the fan system by R. W. Menk, in which he gave as complete an answer to the question asked at the Peoria convention of the Western Warm Air Furnace & Supply Association as it was possible to give.

K. B. Thorndyke, of the American Radiator Company, had considerable to say on thermostatic control of fans.

At noon on Wednesday a cafeteria luncheon was served at which those present were the guests of the Robinson Furnace Company.

In view of the fact that Mr. Menk had not completed his analysis when the luncheon was called, he continued it after the luncheon was over, going into full details on the unit heater and its selling opportunities in the industrial field.

Everyone who attended the meeting pronounced it a grand success.

The review of the whole subject of fan systems as applied to warm air heating was thorough and complete. It removed from the minds of those interested enough in the subject to attend the meeting all doubt and perplexity.

There was no quibbling or mincing of words. The speakers had one purpose in mind, that of revealing true facts, and this they did with an alacrity and consistency that was indeed refreshing.

After the convention was over, all of those true warm air heating men who had been sufficiently interested to present themselves at the meetings, expressed themselves as fully satisfied with what they learned about fan heating.

Even Les Taylor, one of the stormy petrels of the recent Peoria meeting of the Western Warm Air Furnace and Supply Association, who was present at all of the sessions of the fan-furnace convention, expressed his full satisfaction with the manner in which his questions about the application of forced air to the warm air furnace had been answered. He also stated that he for one is ready to cooperate with Mr. Menk wherever possible.

Roy Harrison of the Rudy Furnace Company, also wished to express publicly his appreciation of the ready cooperation he has received from Mr. Menk.

The following formula was given out by Mr. Menk during his analysis of the fan system. It is a short cut formula which he has employed successfully for a long time and is passed on by Mr. Menk as a portion of his contribution to the warm air heating cause. Mr. Menk says this formula can be used on gravity work with safety:

Cubic Feet  $\div$  Velocity = Square feet of area.

Cubic Feet per minute  $\div$  area = Velocity in feet per minute.

Area in Square Feet  $\times$  Velocity = Volume Cubic Feet of Air.

Cubic Feet per Hour  $\times$  Temp. Rise  $\div$  55 = B.t.u.

B.t.u.  $\times$  55  $\div$  Temp. Rise = Cubic Feet per hour.

B.t.u.'s given up per Cubic Foot.

Register temperature minus room temperature  $\div$  55.

175-70

Example: — = 1.90

55

CFM: Cubic Feet per Min.

Velocity: Expressed in feet per Min.

Area: Expressed in square feet.

B.t.u.: The quantity of heat required to raise 55 cubic feet of air one degree.

### Here's One Definition of Happiness, from "Ethics of Safety"

What is happiness? It is the thing we begin to seek from the time we are born until the time we die. What a sorry spectacle so many people make in their attempt to achieve it. What questionable means they employ and how neglectful they are of the happiness of others. In the safety game we can meet everybody on the same foundation. A man who isn't sold on safety is divested of all that is good and beautiful in the world.—From the "Ethics of Safety."



American Welding Society fall meeting, Book Cadillac Hotel, Detroit, Michigan, September 19 to 23, 1927.

American Hardware Manufacturers' Association, Atlantic City, New Jersey, October 17 to 20, 1927. Headquarters Marlborough-Blenheim Hotel; Charles F. Rockwell, 342 Madison Avenue, New York City, Secretary.

National Hardware Association of the United States, Atlantic City, New Jersey, October 17 to 20, 1927. George A. Fernley, 505 Arch Street, Philadelphia, Secretary.

Metal Branch National Hardware Association of the United States, Atlantic City, New Jersey, Tuesday afternoon, October 18, 1927. Headquarters, Marlborough-Blenheim Hotel. F. O. Schoedinger, Columbus, Ohio, Chairman.

National Warm Air Heating and Ventilating Association, Mid-year meeting, Urbana, Illinois, November 30 and December 1, 1927. Urbana-Lincoln Hotel headquarters. Allen W. Williams, 174 East Long Avenue, Columbus, Ohio, Secretary.

# Miniature Motion Pictures Latest Mode of Selling Warm Air Heating System

*Tells Story Complete and Appeals to Human Interest Element Throughout*

**M**EN who have studied the science of merchandising, have discovered that the element human

to it in their merchandising. The Meyer Furnace Company, Peoria, Illinois, has recently devel-

oped for its salesmen and dealer use, a very potent sales maker in the form of a motion picture film. The machine can be taken into the home of the prospective warm air heating system purchaser, and there be run off in twenty minutes or so, telling the story of warm air heating in a most attractive and accurate manner. Nothing is omitted, and the interest of the prospective purchaser of a warm air furnace is held undividedly throughout. All of this is true, because the writer of the scenario, C. L. Venard, Peoria, Illinois, has consistently and successfully stuck to his fairy god mother, the human interest appeal.

The machine itself is in the form of a miniature motion picture projector, operated by an electric motor, run by current from the ordinary domestic wall plug. The entire machine requires only the briefest possible time to set up, and it is so light and compact that it can

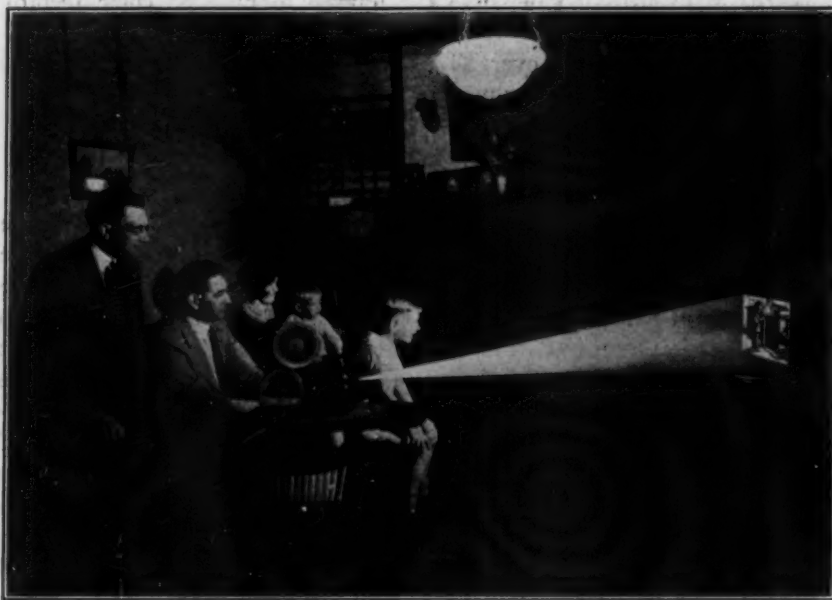


Figure 1—F. E. Mehrings, Sales Manager of the Meyer Furnace Company, Operating the Motion Picture Camera in a Prospect's Home. Not only Mr. and Mrs. Prospect, But the Kiddies as Well, Are Intensely Interested

interest can be made a powerful ally in the sale of products for public consumption.

It must, however, be said to the discredit of merchandisers that they have been unusually slow in recognizing this admirable sales adjunct, because most successful authors and writers have known of its existence for a long time. In their work these latter men and women have taken full advantage of it by building sufficient human interest into their stories to carry the actual narrative along. In that way they have made stories "go over" big that otherwise would not even have gotten past the publishers' readers.

Warm air furnace manufacturers however, are awakening to the fact that they, too, can employ the human interest element, making it work for them in the same way that all others have successfully appealed

The Meyer Furnace Company  
Presents

## "HAPPINESS"

Produced by  
**C. L. VENARD**  
Peoria, Illinois.

The Main Title of the Meyer Furnace Company's Photoplay "Happiness," Produced by C. L. Venard, Peoria, Illinois





Scene from the Meyer Furnace Company's Photoplay, "Happiness"

be carried in a small container.

Figure 1 shows the opening of the photoplay. It should be explained at the outset that the entire project has been built, as you will see, around the element of *human interest*. The play is not merely a succession of pictures showing the Meyer Furnace Company plant.

Rather it takes a scene that is enacted in almost every household at least one or twice a week and around this the author has very adroitly built the story of warm air heating, showing the methods of manufacture only incidentally.

After presenting the main title, "Happiness," the film opens with

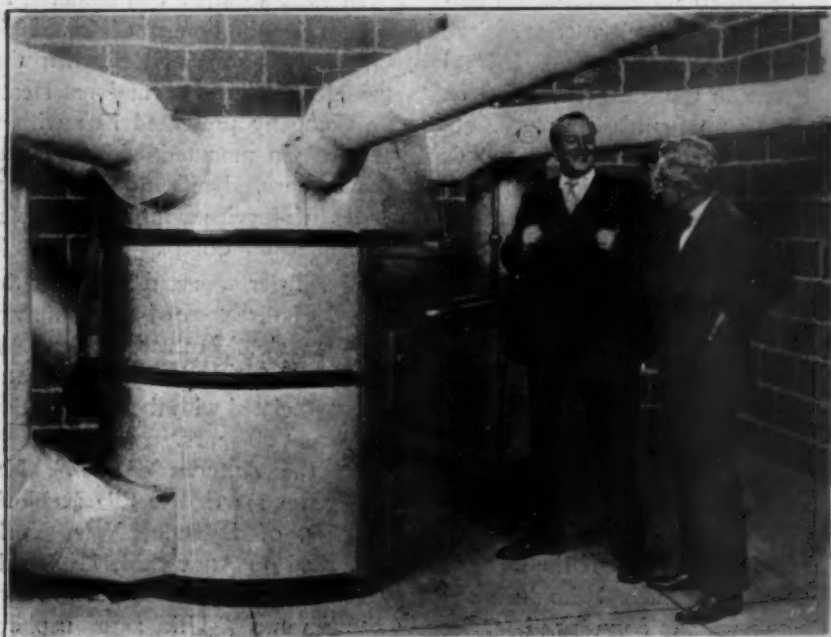
the first title as follows:

"Happiness revolves around many elements, including comfort, cleanliness, economy and healthfulness. What is it in many modern homes from which all these things emanate?"

Then, having aroused an interest, the film presents the Brown family in its new home. Here Mr. and Mrs. Brown are seen seated in the attractive living room of their new home, their young son playing on the floor near the warm air register seen in the background.

The doorbell rings, and presently Mr. and Mrs. Soandso enter. They have come to pay the Browns a visit in their new home. They are greeted warmly, Mrs. Brown takes their wraps, and soon all are seen to engage in conversation. (Mark, this is all taking place on the film before the eyes of the prospective purchaser, who is seated in a comfortable chair in his own home, with his family about him.)

Mr. Soandso remarks (flashed on the screen): "How very pleasant the atmosphere, Brown. What kind of heat have you?" to which Brown replies: "We have come



A Second Scene from the Photoplay "Happiness." Here Mr. Brown Is Seen Proudly Showing and Telling His Neighbor About His Warm Air Heating Plant



back to warm air after trying everything else."

Here Mrs. Soandso interrupts with, "We always thought warm air was dirty, but then it couldn't be any worse than what we have."

"Well, our furnace is absolutely clean," says Brown, and proceeds to show the visitors by rubbing his hand up and down the wall above and about the register, showing his hands and that there isn't a bit of dirt, all of which is very interesting to the folks who had been under a mistaken impression regarding warm air heat.

By this time Soandso has become sufficiently interested to remark, "I'd like to see that furnace," whereupon the two men go to the basement, where Brown proceeds to "sell" his visitor the furnace on which he himself is thoroughly "sold."

Upon returning to the living room, the two men "light up" and the visitor, now very much interested, remarks further, "It must be a great factory where that furnace is made." And knowing it to be so, Brown, who happens to have visited the factory, proceeds to tell his friend about it, and as he describes the various operations in the Weir factory, they appear on the screen.

Occasionally the ladies appear in the picture, Mrs. Brown once remarking, "Another thing I like about warm air is that it is so clean, and so quick when you want heat in a hurry."

After telling all about the factory, Mr. Brown proceeds to tell his friend about the research work at the University of Illinois, and about the Standard Code, warning him not to ever permit the installation of a warm air heating plant in his home unless it be in accordance with the Standard Code.

Finally it is time to go, but before going the visitor pauses to remark, "Well, I have enjoyed the evening, although it was mostly WARM AIR" (they both laugh). "But just the same we are going to have a WEIR furnace like yours," to which Brown replies: "Don't for-

get what I told you about the *Standard Code*." (The End.)

Experience thus far has taught that this new mode of selling warm air heating is replete with features that warm air heating men have long sought. In the first place the salesman can depend upon the novelty of the machine itself and the picture to sustain interest not alone of the adults, but of the children as well. There are no interruptions. The film once under way, the story continues to the end without delays.

## George A. Tyler, Dean of Warm Air Heating Salesmen, Dies at Utica

*In 1922 He Had Rounded Out Five Decades of Service With International Heater Co.*

**F**AITHFUL, loyal, friendly and lovable, such a man was George A. Tyler, who died at his home, Utica, New York, August 25.

He was born on July 5, 1850, in Westmoreland, a suburb of Utica. He received his early education at the A. G. Williams Institute near his home and when 14 years old came to Utica and attended the Advanced School.

On April 1, 1927, he entered the employ as bookkeeper of Russel Wheeler, the father of the president of the International Heater Company, E. E. Wheeler. Ever since that day he has been devoted, loyal and true to the business, which he then took up for his life work. He became conversant with the goods manufactured and with the customers, and in 1890 was sent on trips to visit the larger customers in their home cities.

In 1898 the firm of Russell Wheeler and Son was merged with others into the International Heater Company, and Mr. Tyler was given further and additional responsibilities, fulfilling them in the same conscientious and able manner as had been his wont.

While the success of the business had been his principal aim during all these more than 55 years of service, Mr. Tyler had a hobby. He always loved horses. He bought and

Then, too, nothing is omitted from the sales talk. It is all placed in the film and cannot get away.

It was at first the intention of the company to limit this machine to its own traveling representatives, all of whom carry the outfits, for the purpose of going out with dealers or for them, showing the picture in prospects' homes, and thus helping the dealers sell furnaces, but the service is being extended as rapidly as possible also to dealers for their own use.

looked after the welfare of all horses used in the business and those for the personal use of the members of the firm. But this did not satisfy him. For many years and until the automobile drove them out, he personally owned a horse and usually a fast one. It gave him the greatest satisfaction and pleasure to go to the speedway and pass other horses which their owners thought and boasted of as being very fast. Mr. Tyler loved his horses and his horses loved him.

In 1922 a dinner was tendered to Mr. Tyler in honor of his 50th birthday as a salesman when the president of the International Heater Company presented him with a service pin mounted with five diamond stars, significant of five decades of service with the International Heater Company.

Mr. Tyler was a member of the board of directors of the Commercial Travelers' Mutual Accident Association of America since 1900 and was associated with the organization for about 50 years.

In the Autumn of 1878, Mr. Tyler was married to Ella Marjorie Curtiss, of Ballston, New York. She died on August 24, 1907. He was survived by a niece, Miss Mary E. Scranton, Utica; a nephew, Adelbert A. Tyler, Westmoreland; and two nephews in the West.

# Death Claims John H. Hussie After Protracted Illness

## All Sheet Metal and Warm Air Heating Industry Mourn Passing of This Great Soul

**J**OHAN H. HUSSIE, secretary of the Western Warm Air Furnace and Supply Association and a past president of the National Association of Sheet Metal Contractors, died at his home in Omaha, Nebraska, Thursday, September 1, 1927. Mr. Hussie had been bed-ridden since shortly after returning from the Atlanta convention of the National Association of Sheet Metal Contractors in 1925, suffering from a malignant cancerous growth of the stomach, to which he finally succumbed.

The illness began during the early part of 1923. In May of that year it became necessary to operate upon Mr. Hussie, but in spite of his great bodily pain and discomfort he kept actively at his work of sponsoring warm air heating.

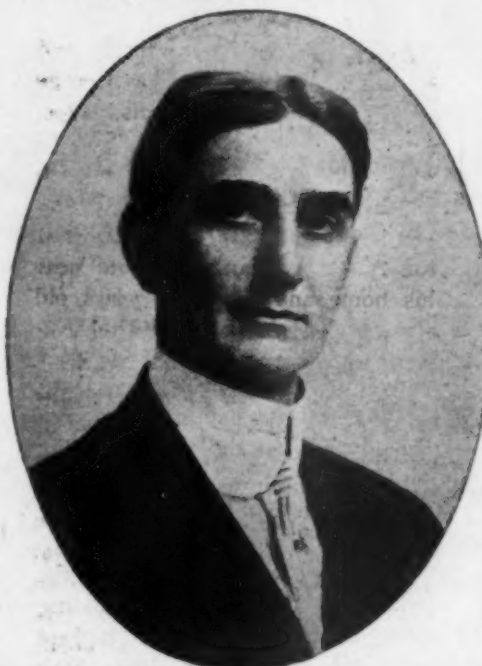
Mr. Hussie was born in Beloit, Wisconsin, February 3, 1866. He did not remain in Wisconsin long, however, as while he was still a small boy his parents took up a homestead near the present site of Tilden, Nebraska. Later when the town of Tilden was laid out, the father opened and operated a small hardware store there.

About 1883, when young John was a stripling of seventeen years, his parents moved to Omaha and there opened a hardware store under the name of the John Hussie Hardware at 2407 Cumings Street. This business was owned by John Hussie, the father, John Harry Hussie, and Maurice D. Hussie, the two sons. In this manner the business was continued uninterruptedly for 43 years, or until 1926, when it was reorganized, with John H. Hussie retiring.

Mr. Hussie won for himself a

high place in the esteem of everyone in the warm air heating and sheet metal contracting fields. He was actively interested in the uplift of the warm air heating industry as far back as the old Federal League days. Then after this project was abandoned he got the furnace manufacturers together and started what is now known as the National Warm Air Heating and Ventilating Association.

In well merited recognition for



1866 — John H. Hussie — 1927

his services as a member of the Warm Air Committee of the National Association of Sheet Metal Contractors for the formation of the new association which was brought about largely by his efforts, Mr. Hussie was elected the first honorary member of that Association, which convened at Detroit, Michigan.

Mr. Hussie was prominently connected with all the local and civic organizations of his home city, where he was very properly consid-

ered one of the leading public spirited citizens.

He was long one of the leading members in the organization Ak-Sar-Ben, the Omaha Field Club, and the Associated Retailers of Omaha.

Mr. Hussie was also a charter member of the Western Warm Air Furnace and Supply Association, as well as its secretary during all the years up to the time of his death, Mrs. Hussie carrying on the duties of the secretary during his last illness.

In addition to being an ardent association worker, Mr. Hussie enjoyed the reputation of being a famous raconteur, and his many stories, told in inimitable fashion, placed him in high demand as a pleasing after dinner speaker wherever he chanced to be.

Perhaps one of the principal characteristics of this eminently successful man was his total lack of selfish motive or self-interest whenever the question of association work loomed in sight.

It is doubtful that any one individual had either attempted or accomplished more than has John H. Hussie in his never failing endeavor to promote the interest and develop the efficiency of associations connected with the industry in which he had chosen to labor.

The Western Warm Air Furnace & Supply Association was undoubtedly Mr. Hussie's special lobby. He realized, together with several of his pals, among whom are Fred Nesbit, George Harms, E. L. Jaynes, Harvey Manny, who is somewhat younger, that small bodies move more quickly than large ones. For this reason, therefore, he very wisely confined a great deal of his



initiatary work to the smaller warm air heating organization.

In starting the agitation for the Standard Furnace Code, he did not go to the National Association with his project. He outlined his plan to the men in the smaller association, the Western Warm Air Furnace and Supply Association, and then when he had these men fairly well whipped into line on the project, he offered the structure of the code to the larger organization for its approval. Fate was kind to Mr. Hussie and he had the extreme satisfaction of seeing his dream child develop into a full-grown, serviceable reality, whose scope of service is steadily increasing as time goes on.

Men who are still to be born will look up to this great disciple of better warm air heating and will thank him for the untiring effort he put forth to make it possible for the warm air heating system to function in a truly serviceable fashion.

No greater compliment can be paid to John H. Hussie than to say that the world is better for his having lived in it. The great heart of John H. Hussie has ceased to beat, but the influence of this great soul will be felt for long years to come.

Mr. Hussie is survived by his widow, one son, one daughter and a brother.

Burial will take place from the home at 9:30 a. m. and from the St. Cecilia Catholic Church, Omaha, at 10 a. m., Saturday morning. Interment will be at the family lot in Omaha.

#### Sheet Metal Contractors Buy Group Insurance for Employees

James Ackroyd & Sons, roofing and sheet metal contractors of Albany, New York, have adopted a group insurance plan providing their employees with health and non-occupational accident protection. The contract is being underwritten by the Metropolitan Life Insurance Company.

The plan provides for the payment of an amount varying with the

wages received and payments become operative one week after disability begins.

Subject to the terms of the policy, payments will continue in each case of disability, for a maximum of thirteen consecutive weeks. During the period of incapacitation, nursing service is placed at the disposal of the employee. In addition to this, a health advisory bureau will regularly distribute pamphlets on disease prevention and health conservation.

The employees are also covered by group life insurance which is given as a reward for length of service.

There is news in the fact that this is the first case coming to the attention of this journal, of sheet metal contractors covering their employees with this sort of group insurance.

#### Methods of Providing for Expansion and Contraction Many

Replying to the inquiry of your subscriber on the necessity for providing some allowance for expansion and contraction of the metal in constructing tin gutters, we can say that this necessity is so well recognized by the trade that undoubtedly many different methods of accomplishing this have been developed, depending upon the nature of the job in each case, according to H. N. Taylor, President N. & G. Taylor Co.

Sometimes the movement of the metal is taken care of by a standing seam introduced at the highest point, where a gutter slopes both ways. Usually it is possible to allow for some movement of the metal by fastening the gutter with cleats or providing a standing seam at one or both ends of the gutter.



#### Perforated Sheets.

From W. G. Cowden, 613 Main Street, Caldwell, Idaho.

Please advise me who makes perforated sheets, especially for threshing machinery.

Ans.—Harrington and King Perforating Company, 5649 Fillmore Street, Chicago, Illinois; Diamond Manufacturing Company, Wyoming, Pennsylvania, and Erdle Perforating Company, Rochester, New York.

#### "Blue Ribbon" Metal Polish

From James A. Black Hardware Company, 3200 East 92nd Street, South Chicago, Illinois.

Can you advise who manufactures "Blue Ribbon" metal polish?

Ans.—International Metal Polish Company, Incorporated, Indianapolis, Indiana.

### Retail Hardware Doings

#### Illinois.

Charles Dedobbelier has purchased the hardware store of Max Reich, Granville. Hiken Brothers have opened a hardware business at Collinsville.

#### Iowa.

The C. M. Watkins Hardware store, Gilmore City, was purchased by Clinton Mullen.

Gunder Hegney is adding an 80 by 22 foot building to his hardware store at Mason City.

George H. Jones and Sons of Lake City are closing out their entire stock of hardware goods.

#### Kansas.

Leslie Booze, Glen Elder, has purchased a stock of hardware for his new business.

#### Michigan.

Wilder D. Stevens, president of the Foster and Stevens Wholesale Hardware Company, died.

The Davis Company, Ithaca, are erecting a new building for their hardware business.

Siegmund Brothers, New Buffalo, have opened a hardware store.

#### Minnesota.

C. C. Searle has purchased the interests of L. W. Dukerschien and Ole P. Berge in the Benson Hardware Company, Benson.

#### Nebraska.

C. A. Nichols & Son have taken over the John Loken Hardware business, Albion.

#### South Dakota.

A. C. Kingsbury has purchased the J. C. Severin Hardware stock, Philip.

#### Wisconsin.

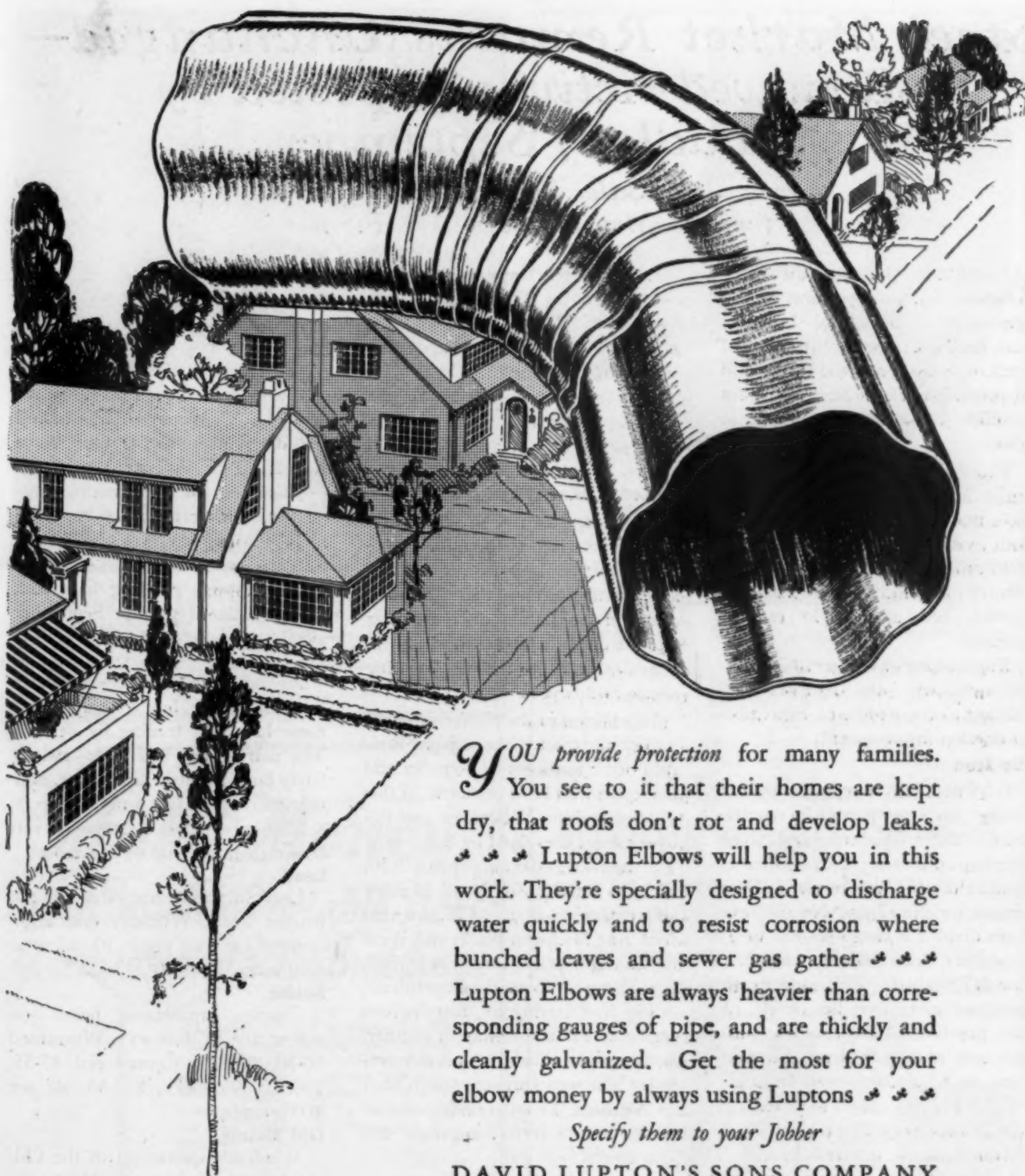
William Dreessen, Augusta, has purchased the Augusta Hardware Company from Fred Z. Aznk and George E. Schneider.

George M. Seitz has sold his hardware store to Frank Hundt, Bangor.

O. C. Olman and A. R. Mitchell have purchased the Van Kanel Brothers Hardware Company at 152 Front Street, Beaver Dam. This firm will be operated under the name of Olman-Mitchell Hardware Company.

A. J. Randa and Son have opened a hardware store at Cudahy.





*Y*OU provide protection for many families.

You see to it that their homes are kept dry, that roofs don't rot and develop leaks.

\*\*\* Lupton Elbows will help you in this work. They're specially designed to discharge water quickly and to resist corrosion where bunched leaves and sewer gas gather \*\*\*

Lupton Elbows are always heavier than corresponding gauges of pipe, and are thickly and cleanly galvanized. Get the most for your elbow money by always using Luptons \*\*\*

*Specify them to your Jobber*

DAVID LUPTON'S SONS COMPANY  
Allegheny Avenue and Tulip Street Philadelphia, Pa.

# LUPTON

## ELBOWS THAT FIT

Say you saw it in AMERICAN ARTISAN—Thank you!

# Steel Market Remains Unchanged— Renewed Activity Expected by Middle of September

*Pig Iron Sales Fairly Good—Non-ferrous Metal Prices Are Firmer*

**A**UGUST is passing with little change in the position of finished steel. Structural bookings have declined somewhat in the past week, due largely to the exhaustion of pending work at New York, but no other finished steel line is so active.

Those products finding a major outlet in the automotive industry have undergone further contraction both in sales and production. The 1928 rail market is more active and inquiry for locomotives has expanded, but interest in cars is dormant.

Steelmaking averages 67 to 69 per cent, with the industry still looking to the middle of September to develop improvement.

## Pig Iron

At Pittsburgh purchases by one concern involving part of its requirements for Allegheny and New Brighton plants for the last quarter feature the pig iron market. These orders for No. 2 and No. 2X iron were divided between several valley producers, none of whom went below \$17.50, base. This concern will purchase more iron this week. It also purchased 2000 tons of southern iron at \$17.25, base, Birmingham, or \$20.64, delivered at Louisville. It likewise closed for a tonnage for Baltimore with an eastern Pennsylvania steel interest having a Maryland plant. One Youngstown district foundry bought 500 tons of No. 2 iron at \$17.50, valley, a middle interest getting 25 cents a ton commission. Other consumers are closing with regular sources of supply.

Malleable also is quoted \$17.50, with no transactions. Demand for steelmaking iron is light. One transaction for basic is noted, and basic now is quoted \$17.25 to

\$17.50. Several sales of bessemer involving up to 500 tons at a time have been closed at \$18, valley.

A few single carloads and also one lot of 200 tons brought \$18.50. Most iron producers decline to pile iron at present high fuel costs, and consequently will operate only to fill orders. Some furnaces have been banked until after Labor Day.

At Chicago the rate of selling that has characterized this month's business in northern pig iron is continuing. Estimates are that the total closed in the Chicago district during August exceeds 60,000 tons. Shipments are close to the best monthly averages this year.

In addition to the pig iron coming into this market by boat from Buffalo other tonnages of foundry and malleable iron have been sold in this district and in Milwaukee for delivery from Cleveland by boat. The market is holding at \$19.50, Chicago furnace, for No. 2 foundry and malleable in the Chicago district. At Michigan points and West of Chicago, prices are made in a few instances to meet competition.

Pig iron buying at Birmingham continues in hand-to-mouth manner, and aggregate business is under output. Nineteen furnaces are in blast in Alabama, 11 on foundry, six on basic, one on ferro-manganese and one special.

## Copper

Copper sold at 13.12½ cents, Connecticut, but on Monday this price disappeared and the market generally was called 13.25 cents, at which most producers had held their asking price. The export price was steady at 13.50 cents c.i.f. after a cut of 15 points.

Producers say that every day they are able to wait now is rapidly turning the situation in their favor, as

requests for early shipment show that users are none too well protected on requirements.

## Zinc

Zinc stocks at the middle of August were more than 1,000 tons less than at the beginning of the month and down about 5,500 tons since July 1.

This news made the market a little firmer after it had sold down rapidly in the few previous days to 6.22½ cents East St. Louis for prime western. Buying has been light, mostly of prompt September metal.

## Tin

Buying of tin by users has been extremely light but on some days there has been trading by dealers. The market has had wide swings lately but with little net change, now being stronger after a rapid drop.

The expectation is statistics will be strong at the end of this month.

## Lead

Lead shipments are large but the market weak. Tuesday one large concern cut lead prices 10 points to 6.50 cents.

## Solder

Chicago warehouse prices on solder are as follows: Warranted 50-50, \$39.50; Commercial 45-55, \$36.50; plumbers', \$33.50, all per 100 pounds.

## Old Metals

Wholesale quotations in the Chicago district, which should be considered as nominal, are as follows: Old steel axles, \$17.00 to \$17.50; old iron axles, \$19.50 to \$20.00; steel springs, \$15.00 to \$15.50; No. 1 wrought iron, \$11.25 to \$11.75; No. 1 cast, \$12.75 to \$13.25, all per net tons. Prices for non-ferrous metals are quoted as follows, per pound: Light copper, 9 cents; zinc, 3½ cents; cast aluminum, 13¾ cents.



# INLAND



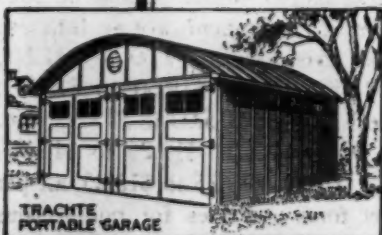


**At the  
Service  
of Steel  
Users**

**INLAND STEEL COMPANY**  
 38 South Dearborn Street, Chicago  
*Works: Indiana Harbor, Indiana; Milwaukee, Wisconsin  
 Chicago Heights, Illinois*  
*Branch Offices and Representatives*  
 ST. PAUL • ST. LOUIS • SALT LAKE CITY • MILWAUKEE  
 KANSAS CITY • NEW ORLEANS • EL PASO

## Make Money with Trachte Portable Steel Garages and Steel Buildings

Leaders in steel products for 30 years. Important processes in the manufacture of portable steel garages and steel buildings are controlled by us. Distributors wanted everywhere. Write for New Catalog and attractive proposition to dealers.




ESTABLISHED  
1901


Send  
for  
Catalog

**TRACHTE  
BROTHERS  
COMPANY**  
 INCORPORATED  
 Madison, Wis.

Round  
Corrugated



Plain Round



NEVER MADE WITHOUT THIS

TRADE *F. Dieckmann* MARK

*Quality and Service Made 'em Famous*

Made of one piece of heavy gauge material, in all styles and angles from 10 to 90 degrees, of 24, 26, 28 ga. ternes, then galvanized after formation.


### DIECKMANN

## Elbows and Shoes


*are the standard of the market  
and always give satisfaction*

Send for new catalogue 26 showing complete line  
**The Ferdinand Dieckmann Co.**  
 P. O. Station B, Cincinnati, O.

Square  
Corrugated  
Style A



Square  
Corrugated  
Style B



Not made lighter than  
28 ga. or 16 oz. copper



# Chicago Warehouse Metal and Furnace Supply Prices

AMERICAN ARTISAN AND HARDWARE RECORD is the only publication containing Western Hardware and Metal prices corrected weekly.

# METALS

## PIG IRON

Chicago Fdy., No. 2.....	\$19 50
Southern Fdy., No. 2.....	23 25
Lake Superior Charcoal.....	27 04
Malleable .....	19 50

## FIRST QUALITY BRIGHT TIN PLATES

IC 20x28 112 sheets.....	\$25 10
IX 20x28.....	29 60
IXX 20x28 56 sheets.....	16 20
IXXX 20x28.....	17 55
IXXXX 20x28.....	18 95

## TERNE PLATES

	Per Box
IC 20x28, 40-lb. 112 sheets.....	\$26 00
IX 20x28, 40-lb. 112 sheets.....	28 50
IC 20x28, 25-lb. 112 sheets.....	21 75
IX 20x28, 25-lb. 112 sheets.....	24 25
IC 20x28, 20-lb. 112 sheets.....	20 00
IV 20x28, 20-lb. 112 sheets.....	22 50
IC 20x28, 15-lb. 112 sheets.....	18 50

## "ARMCO" INGOT IRON PLATES

No. 8 ga. up to and including 1/4 in.—100 lbs.....	\$4 55
--	--------

## COKE PLATES

Cokes, 80 lbs., base, 20x28.....	\$13 85
Cokes, 90 lbs., base, 20x28.....	13 80
Cokes, 100 lbs., base, 20x28.....	14 05
Cokes, 107 lbs., base, IC 20x28.....	14 30
Cokes, 135 lbs., base IX 20x28.....	15 40
Cokes, 155 lbs., base, 56 sheets.....	9 20
Cokes, 175 lbs., base, 56 sheets.....	10 05
Cokes, 195 lbs., base, 56 sheets.....	10 90

## BLUE ANNEALED SHEETS

Base 10 ga. up to and including "Armco" 10 ga. per 100 lbs.....	4 00
---	------

## ONE PASS COLD ROLLED BLACK

No. 12-20.....	per 100 lbs. \$3 75
No. 22.....	per 100 lbs. 3 90
No. 24.....	per 100 lbs. 3 95
No. 26.....	per 100 lbs. 4 05
No. 27.....	per 100 lbs. 4 10
No. 28.....	per 100 lbs. 4 20
No. 29.....	per 100 lbs. 4 35
No. 30.....	per 100 lbs. 4 45

## "ARMCO" GALVANIZED

"Armco" 24.....	per 100 lbs. \$0 15
-----------------	---------------------

## GALVANIZED

No. 16.....	per 100 lbs. \$4 30
No. 18.....	per 100 lbs. 4 45
No. 20.....	per 100 lbs. 4 60
No. 22.....	per 100 lbs. 4 65
No. 24.....	per 100 lbs. 4 80
No. 26.....	per 100 lbs. 5 05
No. 27.....	per 100 lbs. 5 15
No. 28.....	per 100 lbs. 5 30
No. 30.....	per 100 lbs. 5 70

## BAR SOLDER

Warranted	
50-50.....	per 100 lbs. \$39 50

Commercial	
45-55.....	per 100 lbs. 35 50
Plumbers.....	per 100 lbs. 32 50

## ZINC

In Slabs.....	\$ 5 50
---------------	---------

## SHEET ZINC

Cash Lots (500 lbs.).....	\$12 00
Sheet Lots.....	13 00

## BRASS

Sheets, Chicago base.....	17 1/2 c
Mill Base.....	18c
Tubing, brazed base.....	26 1/4 c
Wire, base.....	18 1/4 c
Rods, base.....	15 1/2 c

## COPPER

Sheets, Chicago base.....	22c
Mill Base.....	21c
Tubing, seamless base.....	25c
Wire, No. 9, B & S Ga.....	18 1/4 c
Wire, No. 10, B & S Ga.....	18 1/4 c
Wire, No. 11, B & S Ga.....	19c
Wire, No. 8, B & S Ga. and heavier.....	17 1/2 c

# LEAD

American Pig .....	\$7 40
Bar .....	5 40

## TIN

Big Tin .....	per 100 lbs. \$71 00
Bar Tin .....	per 100 lbs. 72 00

# HARDWARE, SHEET METAL SUPPLIES, WARM AIR FURNACE FITTINGS AND ACCESSORIES.

## ASBESTOS

Paper up to 1/16.....	6c per lb.
Roll board.....	6 1/4 c per lb.
Mill board 3/32 to 1/4.....	6c per lb.
Corrugated Paper (250 sq. ft. to roll).....	\$6 00 per roll

## BRUSHES

Hot Air Pipe Cleaning	
Bristle, with handle, each.....	\$0 85

Flue Cleaning	
Steel only, each.....	1 25

## BURRS

Copper Burrs only.....	40-5%
------------------------	-------

## CEMENT, FURNACE

American Seal, 5-lb. cans, net.....	\$ 40
American Seal, 10-lb. cans, net.....	50
American Seal, 25-lb. cans, net.....	2 00
Pecora.....	per 100 lbs. 7 51

## CHIMNEY TOPS

Adams' Revolving	Wt. Doz.	Price Doz.
4 in.....	21 lbs.	\$11 00
6 in.....	24 lbs.	11 50
7 in.....	30 lbs.	13 50
8 in.....	33 lbs.	15 00
9 in.....	36 lbs.	16 50
10 in.....	41 lbs.	18 00
12 in.....	56 lbs.	22 00
14 in.....	110 lbs.	36 00

## CLINKER TONGS

Front Rank, each.....	\$0 75
Per doz.....	8 40

## CLIPS

Damper	
Acme, with all tail pieces, per doz.....	\$1 25
Non Rivet tail pieces, per doz.....	25

## COPPERS—Soldering

Pointed Roofing	
3 lb. and heavier.....	per lb. 40c
2 1/2 lb.....	per lb. 45c
2 lb.....	per lb. 48c
1 1/2 lb.....	per lb. 53c
1 lb.....	per lb. 60c

## CORNICE BRAKES

Chicago Steel Bending	
Nos. 1 to 6B.....	Net

## CUT-OFFS

Gal. plain, round or cor. rd.	
25 gauge.....	30%
28 gauge.....	35%

## DAMPERS

"Yankee" Hot Air	
7 inch, each 20c, doz.....	\$1 75
8 inch, each 25c, doz.....	2 40
9 inch, each 30c, doz.....	2 75
10 inch, each 32c, doz.....	3 00

## Smoke Pipe

7 inch, each.....	\$0 35
8 inch, each.....	40
9 inch, each.....	50
10 inch, each.....	60
12 inch, each.....	90

Reversible Check	
8 inch, each.....	\$ 55
9 inch, each.....	70

## Diamond Smoke Pipe

7 inch, doz.....	\$ 5 00
8 inch, doz.....	8 00
9 inch, doz.....	12 00
10 inch, doz.....	15 00

# ADAMS' SHEET METAL

7 inch, doz.....	\$ 1 60
8 inch, doz.....	2 20
9 inch, doz.....	2 40
10 inch, doz.....	2 80

## DIGGERS

Post Hole	
Iwan's Split Handle (Eureka)	
4-ft. Handle... per doz.....	\$14 00
7-ft. Handle... per doz.....	36 00
Iwan's Hercules pattern, per doz.....	14 90

## EAVES TROUGH

Galv. Crimped, crated 75 & 5% Zinc, "Barnes".....	60%
---	-----

## ELBOWS

Conductor Pipe	
Galv. plain or corrugated, round flat Crimp.	
28 Gauge.....	60%
26 Gauge.....	45%
24 Gauge.....	15%

Galv. & Terne Steel	
Plain Rd. and Rd. Corr.:	
28 Ga.....	60%
26 Ga.....	45%
24 Ga.....	15%

Square Corrugated	
No. 28 Gauge.....	50%
26 Gauge.....	35%

Fortico Elbows	
Standard Gauge Conductor Pipe, plain or corrugated.	
Not nested.....	70 & 5%
Nested solid.....	70 & 5%

Sq. Corr., A. & B. & Octagon:	
28 Ga.....	50%
26 Ga.....	35%

Fortico	
1", 1 1/4", 1 1/2".....	45%

Copper	
18 oz., all designs.....	45%

Zinc—	
All styles.....	60%

## ELBOWS—Stove Pipe

1-piece Corrugated, Uniform Blue "Milcor" No. 28 Gauge. Doz.....	\$1 25
5-inch.....	1 25
6-inch.....	1 35
7-inch.....	1 75

## Special Corrugated

6-inch.....	\$1 00
7-inch.....	1 60

## Adjustable—Uniform Blue

"Milcor" No. 28 Gauge. Uniform Blue.	
5-inch.....	\$1 75
6-inch.....	1 85
7-inch.....	2 15

## WOOD FACES—50% off list.

FENCE	
726-6-12 1/2 (100 rods).....	\$28 62
1943-6-14 1/2 (100 rods).....	42 62

## FILES AND RASPS

Heller's (American).....	50-10%
American.....	60-10%
Arcade.....	50%
Black Diamond.....	50%
Eagle.....	50%
Great Western.....	50%
Kearney & Foot.....	50%
McClellan.....	50%
Nicholson.....	50%
Simonds.....	50%

## FIRE POTS

Clayton & Lambert's	
East of west boundary line of Province of Manitoba, Canada, No. Dakota, So. Dakota, Nebraska, Kansas, Oklahoma, Amarillo, San Angelo and Laredo, Texas.....	62c
West of above boundary.....	42%

# Geo. W. Dwyer Mfg. Co.

No. 92 Gasolene Torch, 1 qt.....	\$4 65
No. 9250, Kerosene, or Gasolene Torch, 1 qt.....	7 50
No. 10 Tinner's Furn. Square tank, 1 gal.....	12 60
No. 15 Tinner's Furn. Round tank, 1 gal.....	12 00
No. 21 Gas Soldering Furnace.....	3 50
No. 110 Automatic Gas Soldering Furnace.....	10 50

## Double Blast Mfg. Co.

Gasolene, Nos. 25 and 35.....	60%
-------------------------------	-----

## Quick Meal Store Co.

Vesuvius, F. O. B. St. Louis 30% (Extra Disc't. for large quantities)	
---	--

## GALVANIZED WARE

Pails (Galv. after made), 10-qt.....	\$2 12
Tubs (Galv. after made), No. 1.....	8 00
No. 2.....	8 55

## GLASS

Single Strength, A, 35-in. brackets.....	87%
Single Strength, A, 34 to 40-in. bracket.....	86%
Single Strength, A, all other brackets.....	86%
Double Strength, A, all sizes.....	86%

## HANGERS

Conductor Pipe	
Milcor Perfection Wire.....	25%

## Eaves Trough

Milcor Eclipse Wire.....	15%
Milcor Triplex Wire.....	10%
Milcor Milwaukee Extension 10%	
Milcor Steel (galv. after forming) List.....	plus 12 1/2%
Milcor Selflock E. T. Wire, List.....	plus 50%

## HOOKS

V. & B. No. 1, each.....	\$0 25
--------------------------	--------

## Conductor

"Direct Drive" Wrought Iron for wood or brick.....	15%
--	-----

## Hay

V. & B. No. 1, each.....	\$0 25
--------------------------	--------

## HUMIDIFIERS

"Front-Rank" Automatic	
In single lots.....	50%
In lots of 10 or more.....	50-55%
In lots of 25 or more.....	50-10%
Vapor pans, etc., each.....	50%

## LIFTERS

Stove Cover	
Coppered.....	per gro. \$5 00
Alaska.....	per gro. 4 75

## MALLETS

Tinners	
Hickory.....	per doz. \$2 25

## MITRES

Galvanized steel mitres.	
28 Ga.....	70
26 Ga.....	60-20

## NAILS

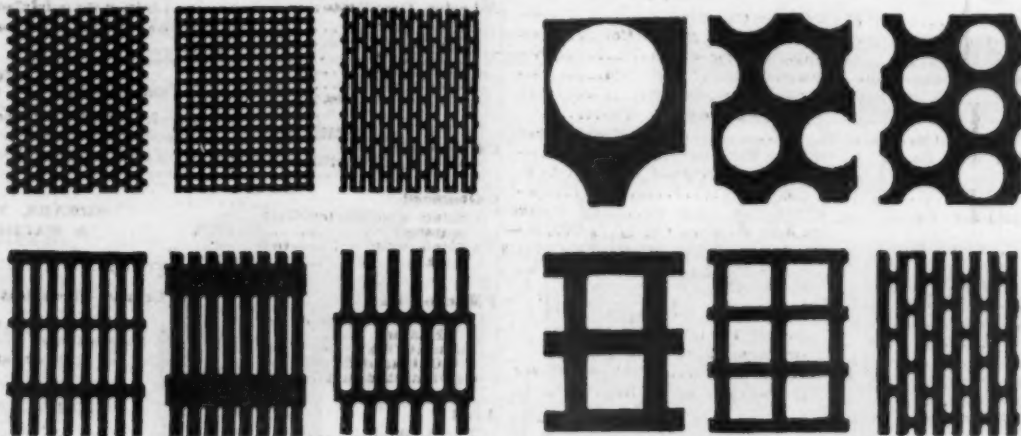
Cut Steel.....	\$4 35
Cut Iron.....	4 35

## Wire

Common.....	2 95
Cement Coated.....	3 95

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# PERFORATED METALS



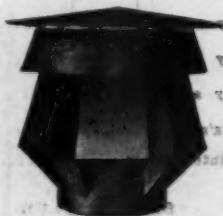
All Sizes and Shapes of Holes in all Kinds and Thicknesses of Metal.  
Punched Metal Grilles, Register Faces, Ventilators, etc.

Guard Material for Machines and Belts. We supply a complete line of Accessories  
Screens for Grain, Minerals or anything to be screened.  
Perforated Tin and Brass always in stock

## THE HARRINGTON & KING PERFORATING CO.

5649 FILLMORE STREET, CHICAGO, ILLINOIS, U. S. A.  
New York Office: 114 Liberty Street

### ÆOLUS FOR HOMES



The 12-Cylinder Ventilator.  
Used in Every State  
in the Union.

The home should be properly ventilated—few of them are. Here is a sales opportunity often overlooked by the average Sheet Metal Worker, but one which offers a lucrative business to those who take advantage of it.

#### Æolus-Dickinson

Vent. Makers Since 1888

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CHICAGO

Phone: Lafayette 1862-1863

SPECIFY ÆOLUS  
VENTILATORS

### EARLE'S VENTILATOR



IMPROVED  
REVOLVING

It runs in a self-lubricating bearing that is not affected by heat or cold. It is noiseless and produces an upward current of air. No down draft. It will satisfy and give you a good profit.

ASK YOUR NEAREST JOBBER

#### BERGER BROS. CO.

229 to 237 ARCH STREET  
WAREHOUSES AND FACTORY: 100 TO 114 BREAD STREET  
PHILADELPHIA, PA.  
Manufacturers of "Quaker City" line of Miter, Ends, Caps and Outlets

### Read This Practical Book NOW SNOW'S FURNACE HEATING

(Enlarged Revised Edition)

A book that deals with the different types of furnaces, their construction, proper location and setting together with furnace fittings. It is the standard authority.

This new edition contains a chapter covering the main features of one pipe or pipeless furnace heating, which has become a big factor in warm air heating.

Contents—Furnaces; House Heating, Combination Systems; Air, Heating and Ventilation of School Buildings; Heating of Public Buildings, Churches and Stores; Fan Furnace Combination System; Temperature Control; Estimates and Contracts; Fuels; Miscellaneous Tables and Data; Furnace Fittings; Miscellaneous Notes, from Various Sources on Furnace Heating.

Order your copy now and ask for our 10 page catalog of books.

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264 Pages  
PRICE, \$3.00  
Postpaid

AMERICAN ARTISAN 620 S. Michigan Avenue  
Chicago, Illinois

### The NEW IMPROVED "STANDARD"

ROTABLE VENTILATOR

THIS favorite ventilator has been further improved to insure—

Greater Durability  
Quieter Operation  
Greater Efficiency  
Better Balance

The New Cone-top Suspension, new Bronze Guide Bushings, and Cross-Braced Skirt are the new features.

Let us tell you in detail all about this better ventilator.

Write for special circular and prices today



"Standard" Ventilator and Chimney Cap—Most Efficient Combination on the market.

STANDARD VENTILATOR CO., Lewisburg, Pa.



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NETTING, POULTRY		ROOFING	
Galvanized before weav-	ing	Best grade, slate surf. pre-	pared
Galvanized after weaving.	52 1/2-53	Best talc surfaced.	3 65
		Medium talc surfaced.	3 80
		Light talc surfaced.	1 39
		Red Rosin Sheeting, per ton	57 00
PASTE		SCREWS	
Asbestos Dry Paste:		Sheet Metal	
200-lb. barrel	\$18 00	7, 1/4x1/2, per gross.	\$0 63
100-lb. barrel	8 75	No. 10, 1/4x3/16, per gross.	63
35-lb. pail	3 50	No. 14, 1/4x1/2, per gross.	89
10-lb. bag	1 10		
5-lb. bag	60		
2 1/2-lb. cartons.	35		
PIPE		SHEARS, TINNERS' & MACHINISTS'	
Conductor		Viking	\$22 00
Cor. Rd., Plain Rd. or Sq.		Lennox Throatless	
		No. 18	35%
		Shear blades	10%
		(t. o. b. Marshalltown, Iowa.)	
Galvanized			
Crated and nested (all gauges)	75-2 1/2%		
Crated and not nested (all gauges)	70-15%		
Furnace Pipe		SHIELDS, REGISTER	
Double Wall Pipe and Fittings	59%	No. 1 "Gem" floor.	\$12 00 doz.
Single Wall Pipe, Round	59%	No. 2 "Gem" wall.	6 00 doz.
Galvanized Pipe	59%		
Galvanized and Tin Fittings.	59%		
Lead		SHOES	
Per 100 lbs.	\$12 50	Galv. 38 Gauge, Plain or corrugated round flat crimp.	60%
		26 gauge round flat crimp.	45%
		24 gauge round flat crimp.	15%
Stove Pipe			
"Milcor" "Titalock" Uniform Blue			
Stove			
38 gauge, 5 inch U. C.			
nested	11 50		
26 gauge, 6 inch U. C.			
nested	12 25		
26 gauge, 7 inch U. C.			
nested	14 25		
30 gauge, 8 inch U. C.			
nested	10 50		
30 gauge, 6 inch U. C.			
nested	11 25		
30 gauge, 7 inch U. C.			
nested	13 25		
T-Joint Made up			
6-inch, 38 ga.	per doz. \$ 5.00		
All Zinc		SNIPS, TINNERS'	
No. 11, all styles.	60%	Clover Leaf	40 & 10%
		National	40 & 10%
		Star	50%
		Milcor	Net
POKERS, STOVE		SQUARES	
W'r't Steel, str't or bent,		Steel and Iron.	Net
per doz.	\$0 75	(Add for bluing, \$3 per doz. net.)	
Nickel Plated, coil handles,		Mitre	Net
per doz.	1 10	Try	Net
		Try and Bevel.	Net
		Try and Mitre.	Net
POKERS, FURNACE		Fox's	per doz. \$8 00
Each	\$0 50	Winterbottom's	10%
PULLEYS		STOPPERS, FLUX	
Furnace Tackle.	per doz. \$0 50	Common	per doz. \$1 10
Furnace Screw (enameled)	per gro. 6 00	Gem, No. 1.	per doz. 1 10
Furnace Screw (enameled)	per doz. 75	Gem, Flat, No. 2.	per doz. 1 00
Ventilating Register		VENTILATORS	
Per gross.	\$ 00	Standard.	30 to 40%
Small, per pair.	30	WIRE	
Large, per pair.	50	Plain annealed wire, No. 8,	per 100 lbs.
		per 100 lbs.	\$3 05
		Galvanized barb wire, per 100 lbs.	3 90
		Wire Cloth—black painted, 12-mesh, per 100 sq. ft.	1 65
		Cattle Wire—galvanis'd catch weight spool, per 100 lbs.	3 65
		Galvanized Hog Wire, 30 rod spool, per spool.	3 18
		Galvanized Plain Wire, No. 8, per 100 lbs.	3 40
		Stove Pipe, per stone.	1 10
PUTTY		WRINGERS	
Commercial Putty, 100-lb Kits	\$3 40	No. 790, Guarantee	each \$5 10
		No. 770, Bicycle	each 4 70
		No. 670, Domestic	each 4 35
		No. 110, Brighton	each 3 70
		No. 750, Guarantee	each 5 10
		No. 740, Bicycle	each 4 70
		No. 33, Pioneer	each 3 40
		No. 3, Superb	each 2 65
QUADRANTS			
Malleable Iron Damper.	10%		
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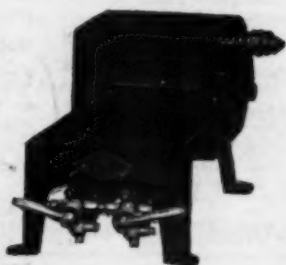
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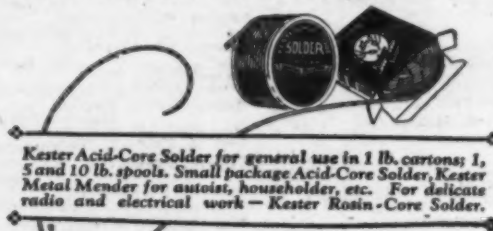


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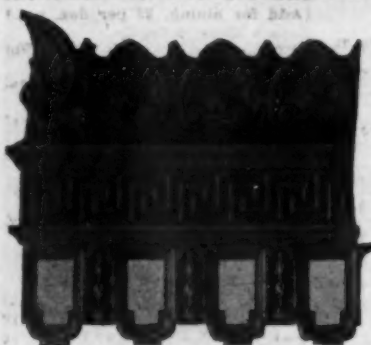
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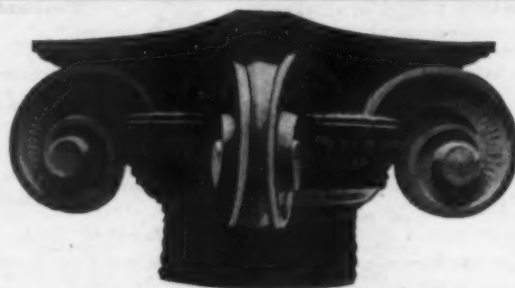


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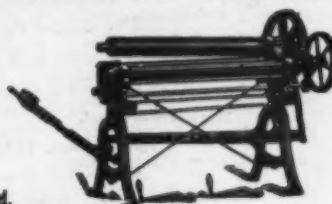
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Southington, Conn.

**Solder.**  
Chicago Solder Co.,  
Chicago, Ill.  
Double-Duty Elbow Co.,  
Aurora, Ill.  
Milwaukee Corrugating Co.,  
Milwaukee, Wis.

**Soldering Furnaces.**  
Burgess Soldering Furnace Co.,  
Columbus, Ohio  
Clayton & Lambert Mfg. Co.,  
Detroit, Mich.  
Diener Mfg. Co., G. W.,  
Chicago, Ill.  
Double Blast Mfg. Co.,  
North Chicago, Ill.  
Quick Meal Stove Co.,  
St. Louis, Mo.

**Soldering Supplies.**  
Double-Duty Elbow Co.,  
Aurora, Ill.  
Special Chemicals Co.,  
Waukegan, Ill.

**Specialties—Hardware.**  
Diener Mfg. Co., G. W.,  
Chicago  
Hessler Co., H. E., Syracuse, N. Y.

**Stars—Hard Iron Cleaning.**  
Fanner Mfg. Co.,  
Cleveland, Ohio  
Friedley-Voshardt Co.,  
Chicago, Ill.

**Gerock Bros. Mfg. Co.,**  
St. Louis, Mo.

**Stove Pipe Reducers.**  
Milwaukee Corrugating Co.,  
Milwaukee, Wis.

**Stoves—Camp.**  
Quick Meal Stove Co.,  
St. Louis, Mo.

**Stoves—Gasoline and Oil.**  
Quick Meal Stove Co.,  
St. Louis, Mo.

**Stoves and Ranges.**  
Gray & Dudley Co.,  
Nashville, Tenn.  
Quick Meal Stove Co.,  
St. Louis, Mo.  
Thatcher Co.,  
Newark, N. J.

**Tacks, Staples, Spikes.**  
American Steel & Wire Co.,  
Chicago, Ill.

**Tinplate.**  
Milwaukee Corrugating Co.,  
Milwaukee, Wis.  
Osborn Co., The J. M. & L. A.,  
Cleveland, Ohio  
Taylor Co., N. & G.,  
Philadelphia, Pa.

**Tools—Tinsmith's.**  
Bertsch & Co.,  
Cambridge City, Ind.  
Chicago Elbow Machine Co.,  
Oak Park, Ill.  
Double-Duty Mfg. Co.,  
Aurora, Ill.  
Dries & Krump Mfg. Co.,  
Chicago, Ill.  
Hyro Mfg. Co., New York, N. Y.  
Marshalltown Mfg. Co.,  
Marshalltown, Iowa  
Osborn Co., The J. M. & L. A.,  
Cleveland, Ohio  
Peck, Stow & Wilcox Co.,  
Southington, Conn.  
Ryerson & Son, Inc.,  
Chicago, Ill.  
Viking Shear Co.,  
Erie, Pa.  
Whitney Mfg. Co.,  
Rockford, Ill.  
Whitney Metal Tool Co.,  
Rockford, Ill.

**Torches.**  
Burgess Soldering Furnace Co.,  
Columbus, Ohio  
Clayton & Lambert Mfg. Co.,  
Detroit, Mich.  
Diener Mfg. Co., G. W.,  
Chicago, Ill.  
Quick Meal Stove Co.,  
St. Louis, Mo.

**Trade Extension.**  
Copper & Brass Research As-  
sociation, New York, N. Y.  
Sheet Steel Trade Extension  
Committee, Pittsburgh, Pa.

**Trimnings—Stove.**  
Fanner Mfg. Co.,  
Cleveland, Ohio

**Ventilators.**  
Aeolus Dickinson Co.,  
Chicago, Ill.  
Akraut Ventilators, Inc.,  
Chicago, Ill.  
Arex Company,  
Chicago, Ill.  
Berger Bros. Co.,  
Philadelphia, Pa.

**Friedley-Voshardt Co.,**  
Chicago, Ill.  
Kernchen Co.,  
Chicago, Ill.  
Lupton's Sons Co., David,  
Philadelphia, Pa.  
Milwaukee Corrugating Co.,  
Milwaukee, Wis.  
Royal Ventilator Co.,  
Philadelphia, Pa.  
Standard Ventilator Co.,  
Lewisburg, Pa.  
Sturtevant Co.,  
Boston, Mass.

**Ventilators—Ceiling.**  
Eaglesfield Ventilator Co.,  
Indianapolis, Ind.  
Hart & Cooley Co.,  
New Britain, Conn.  
Henry Furnace & Fdy. Co.,  
Cleveland, Ohio  
Tuttle & Bailey Mfg. Co.,  
New York  
Sturtevant Co., B. F., Boston, Mass.

**Windows—Steel.**  
Lupton's Sons Co., David,  
Philadelphia, Pa.

**Wire—Electrical.**  
American Steel & Wire Co.,  
Chicago, Ill.

**Wire Hoops.**  
American Steel & Wire Co.,  
Chicago, Ill.

**Wire Rope.**  
American Steel & Wire Co.,  
Chicago, Ill.

**Zinc.**  
Merchant & Evans Co.,  
Philadelphia, Pa.  
New Jersey Zinc Co., The,  
New York, N. Y.

## WANTS AND SALES

Any yearly subscriber to **AMERICAN ARTISAN** may insert advertisements of not more than fifty words in our Want and Sales Columns **WITHOUT CHARGE**.

Such advertisements, however, must be limited to help or situation wanted, tools or equipment for sale, to exchange or to buy, business for sale or location desired.

## BUSINESS CHANCES

**Lightning Rods**—Dealers who are selling Lightning Protection will make money by writing us for our latest Factory to Dealer Prices. We employ no salesmen and save you all overhead charges. Our Pure Copper Cable and Fixtures are endorsed by the National Board of Fire Underwriters and hundreds of dealers. Write today for samples and prices. L. K. Diddle Company, Marshfield, Wisc.

**Wanted**—A man about the age of 30 to 40 years with \$3,000 to \$5,000 capital to buy an interest in a well established sheet metal and roofing concern. Must be capable of estimating plans and to take charge of men in shop. A man preferred that is a hustler and anxious to get somewhere in this world. A city with a population of approximately 75,000 in Southern Michigan. If interested let us hear from you at once. Address B-89, care **AMERICAN ARTISAN**, 620 South Michigan Avenue, Chicago, Ill. 6-3t.

**Wanted**—Hardware doing prosperous business in town of six to thirty thousand within 100 miles of Chicago. Address W. E. Hilgerink, 127 Virginia St., Elmhurst, Ill. 8-3t

**Wanted**—First class tinner and furnace man wants to lease or buy on easy terms, shop only, or wants to start new shop with reliable hardware store. Must be in good town of 2,000 or more inhabitants. Small competition. Preferably Minnesota, Iowa or Nebraska. Address B-92, care **AMERICAN ARTISAN**, 620 South Michigan Avenue, Chicago, Illinois. 7-3t

**Would you like to own a fully equipped tin shop in a town about 2,500.** Borden milk people are starting one of their largest plants here this year. Good chance for combination shop, as sewerage has just been completed. Also have residence if you want to buy. No better climate anywhere. Address H. D. Holttam, Macon, Miss. 6-3t.

**For Sale**—Sheet metal and furnace business, together with building and lot, in good Michigan town. Established business. Old age and poor health reason for selling. Address B. 100, **AMERICAN ARTISAN** & Hardware Record, 620 S. Michigan Ave., Chicago, Illinois. 10-3t

**Opportunity to get into real business and manage one of our shops.** No money required. You pay for your stock out of your monthly earnings. Address Illinois Plumbing & Heating Company, DuQuoin, Illinois. 10-1t

**For Sale**—Warm Air Heating and sheet metal shop. Extra good set of tools including brake and circular shears. Town 2,000 population. One other shop. Good competition. \$1,000 will handle. Write Ray M. Sharp, Bedford, Iowa. 6-3t.

**For Sale**—One-ton Dodge-Graham truck, canopy top, 1927 model, driven 3,500 miles, and in first-class condition. Also No. 2 Imperial welding outfit. Address B-90, care **AMERICAN ARTISAN**, 620 South Michigan Avenue, Chicago, Illinois. 6-3t

**For Sale**—Good clean stock of hardware in Central Illinois city. Will make right price for quick sale. Address P. O. Box 97, Lincoln, Illinois. 10-3t

**Wanted**—Used National cash register. Give number, description and lowest cash price. Address B. 101, **AMERICAN ARTISAN**, 620 S. Michigan Ave., Chicago, Ill. 10-3t

## BUSINESS CHANCES

**Partner Wanted**—One who is a good mixer and a first-class hardware man to join me in starting a hardware store. I now have a plumbing and sheet metal shop, doing a fine business. This is a nice, clean town and a good, healthy climate. Good opportunity here. Have party who will build a store building to suit. Address F. A. Struck Plumbing & Sheet Metal Works, Golden, Colo. 10-3t

**For Sale**—One 110-gallon tank and Bowser pump. Was used for linseed oil for about one and half years. Also hand elevator only used two years. Platform size 3x3. Also Stencil outfit from one to nine, including O and from A to Z. Make me an offer for any of the above. Address John P. Paulus, 311 Franklin St., Port Washington, Wisconsin. 7-3t

**For Sale**—Plumbing, heating and sheet metal shop. All tools necessary for such work, including 8-foot Niagara brake, 30-inch squaring shears. Has always been a paying investment. Small town 25 miles from Danville, Illinois. Address B-99, **AMERICAN ARTISAN**, 620 South Michigan Avenue, Chicago, Illinois. 9-3t

**For Sale**—Sheet metal shop. Stock and good tools including steel cornice brake, rollers, etc., or will sell tools separately. Write A. H. Kreueger, 3519 Thomas Avenue, Minneapolis, Minnesota. 7-3t

**For Sale**—Exclusive plumbing, heating and sheet metal business in a town of 980 population located in a wealthy farming community near a city of 100,000. Illinois town. Poor health reason for selling. \$3,000 will swing deal. Address B-96, **AMERICAN ARTISAN**, 620 South Michigan Avenue, Chicago, Ill. 8-3t

**For Sale**—A No. 1 tinning, plumbing and heating shop in a 3,000 Minnesota growing town doing \$40,000 per year. No competition. Will sell building or rent it. Working six men. Good show room. A real buy. Address B-95, **AMERICAN ARTISAN**, 620 South Michigan Avenue, Chicago, Ill. 8-3t

**For Sale**—Hardware and general store, well established, doing good business, plenty of stove and pump work. Located on main street in center of town. Good chance for man and wife. Living quarters over store. Building can be bought or leased. Address P. O. Box 164, West Dennis, Mass. 8-3t

**Wanted**—To get in connection with a sheet metal worker who has his own set of machines and wants to move his equipment into a better location and take up an established business. For particulars write L. T. Petersen, Denison, Iowa. 10-3t

## SITUATION WANTED

**Situation Wanted**—By an A1 sheet metal worker and layout man; 30 years' experience; age 46; sober; steady; married and hard worker. Prefer shop work. Experience covers every phase of sheet metal and tin work. Please state wages and hours. Address B-86, care **AMERICAN ARTISAN**, 620 South Michigan Avenue, Chicago, Illinois. 5-3t

**Situation Wanted**—By a first-class plumber; can also do heating and tinwork; can estimate, read blue prints or run shop. Am steady and reliable and want just such a job. Illinois or Iowa preferred, but will go anywhere. State full particulars. Address B-85, care **AMERICAN ARTISAN**, 620 South Michigan Avenue, Chicago, Illinois. 6-3t

**Situation Wanted**—By a first class plumber, tinner, steam and hot water heating and repair work. Have worked at the trades for over 30 years. Am married and want steady work the year round. Please state wages in first letter. Address B-91, care **AMERICAN ARTISAN**, 620 South Michigan Avenue, Chicago, Illinois. 7-3t

**Situation Wanted**—A first-class, all-round sheet metal worker, well versed in all lines of sheet metal, wishes to secure employment as Foreman or Superintendent in a first-class up-to-date sheet metal shop. State salary conditions. B-97, **AMERICAN ARTISAN**, 620 South Michigan Avenue, Chicago, Illinois. 6-3t

**Situation Wanted**—By young married man with five years' experience in a sheet metal shop. Can do most everything that comes in a sheet metal repair shop; can also do gutter or cornice work and can furnish best of reference. B-98, **AMERICAN ARTISAN**, 620 South Michigan Avenue, Chicago, Illinois. 8-3t

## SITUATION WANTED

**Situation wanted** by a capable plumber with Massachusetts license. Can do steam fitting, guttering, roofing and furnace work. Must be permanent position. Please state wages per hour and number of hours per week. Willing to go anywhere. Address L. D. B., 556 Hubbard Avenue, Pittsfield, Mass. 9-3t

**Situation Wanted**—By sheet metal worker having 25 years' experience in shop, furnace, blow pipe, ventilation, square or round duct heating work. Know the Standard Code. Sober, steady worker. Please state wages and hours. Address L. C. Aitken, Box 484, Muscatine, Iowa. 7-3t

**Situation Wanted**—First-class tinner and furnace man. Can do inside and outside work. 25 years at the trade. Nothing but steady work the year around. Married. Can do anything that comes in any tin shop. Address W. J. Mack, St. Charles, Illinois, Route 2, R. F. D., Box 17. 9-3t

**Situation Wanted**—By metal worker and furnace installer. Inside or outside. Middle west preferred. Age 32, married and sober. Must be steady. State wages and hours in first letter. Address W. E. Hull, 409 Military, Dodge City, Kansas. 6-3t

**Situation Wanted**—Tinner and plumber with 25 years' experience in warm air and hot water furnaces, and hot water heating. Country town preferred. Address Frank Van, Granite Falls, Minnesota. 6-3t.

**Situation Wanted**—By first class sheet metal worker, warm air furnace installer. Plumbing and hot water heating. Address B-83, care **AMERICAN ARTISAN**, 620 South Michigan Avenue, Chicago, Illinois. 5-3t

**Situation Wanted**—By a first-class sheet metal worker and warm air furnace installer. Steady and reliable. Address B. 103, **AMERICAN ARTISAN**. 10-3t

## HELP WANTED

**Wanted at Once**—First-class furnace salesman. One who is a live wire and not afraid of work. Must be able to estimate and make own layouts. A dandy proposition for the right man. A city of approximately seventy-five thousand population in southern Michigan. Would like to hear from someone at once. Address B. 102, **AMERICAN ARTISAN**, 620 S. Michigan Ave., Chicago, Ill. 10-3t

**Wanted**—A man who is a good tinner and plumber with capital to buy an interest in a tin and plumbing shop in the fastest growing city in the country in the largest oil fields ever brought in. Lots of plumbing and tin work here now. Have more business than I can see so need more capital to run the business. Address J. B. Loveless, Box 207, Seminole, Oklahoma. 9-3t

**Wanted at Once**—Combination plumber and tinner; also a fair knowledge of steam and hot water work. Steady job the year around. Must be able to read blue prints, estimate and lay out own work. County seat town of 3,000. Address Box 15, Alton, Nebraska. 9-3t

**Wanted**—Combination tinner and handy man. Married man preferred. Steady work. Wages \$20 to \$25 per week with two furnished rooms included. Address B-94, **AMERICAN ARTISAN**, 620 South Michigan Avenue, Chicago, Ill. 8-3t

**Wanted**—A neat and progressive sheet metal worker. Must be willing and able to do both in and outside work. Steady work to first-class mechanic. Do not apply unless you know the business. I want a man fully qualified. Address Harry T. Klugel, North Emporia, Va. 8-3t

**Wanted at Once**—Sheet metal worker and furnace installer. Must be a good man. Write or call E. G. Hurdle, Hardware, Rock Falls, Illinois. 9-3t

**Wanted**—At once a first-class sheet metal worker and furnace man. Address Andrew Lind, Dundee, Illinois. 7-3t



## TINNERS' TOOLS

For Sale—1 Chicago Steel Cornice Brake (Dreis and Krump); 1 36-inch roller (Peck, Stow and Wilcox); 1 five-in-one combination tool (edging, crimp, bead, thick and thin edge); 1 air pump with equipment for radiator repairing; 1 1-ton Ford truck; and smaller tools. All in A-1 condition. Address Karl F. Hedberg, 179 6th Avenue, Brooklyn, New York. 10-3t

Wanted—To buy used 36-inch roll for 14-inch gauge iron and lighter. Address Hanbury Sheet Metal Company, 512 West 8th street, Des Moines, Iowa. 7-3t

For Sale—One sectional sheet metal rack 10 ft. long. Holds 44 bundles and only 40 inches high. Cost \$50.00. Best offer takes it. Also new steel furnace rope and pulleys. R. W. Tyler, 436 North Second Avenue, Canton, Illinois. 8-3t

For Sale—One No. 8-19-5 Ideal sectional boiler, made by American Radiator Co. Has been in use one winter. First class condition. Will sell at a bargain. Address Brouillet Sheet Metal Works, 271 Iowa street, Dubuque, Iowa. 7-3t

For Sale—One 20-inch grooving machine; one large burring or circle shears; one turning down machine. Address G. O. Crouch and Sons, 31-33 Market Square, Chattanooga, Tennessee. 7-3t

Wanted to Buy — 30-inch stove pipe rolls, 30-inch square shears and 8-foot brake. State best prices for cash. Address F. C. Ramer, Cedar Falls, Iowa. 9-3t

Wanted—One new or used Capitol Auxiliary 500 feet hot water coil. Quote your lowest cash price. Write Edw. A. Knabe, 1209 First avenue, Rock Falls, Illinois. 7-3t

Wanted — Second-hand tinner's tools and machines. Write and state lowest prices for cash. Address C. S. Johnson, Dell Rapids, South Dakota. 4-3t

## SPECIAL NOTICES

The Rate for Special Notices  
— displayed want ads —  
\$3.00 per inch per insertion.

**PATENTS**  
HUBERT E. PECK  
Patent Attorney  
Barrister Bldg., WASHINGTON, D. C.

## SITUATION WANTED

Either sales or purchasing. Am experienced in sheet steel, jobbing and metal ceilings, understand blue-prints and estimating. Acquainted with the trade in Chicago and surrounding territory. Address W-33, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 6-3t.

## STOVE SALESMAN WANTED

For Iowa and Nebraska that can induce large business on high grade coal ranges, parlor furnaces and gasoline pressure stoves. Best of references of character and previous record for obtaining sales must be given. No other need apply. Good position for the right man. Hayes-Custer Stove & Furnace Company, Bloomington, Illinois. W35

## SPECIAL NOTICES

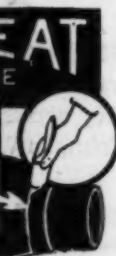


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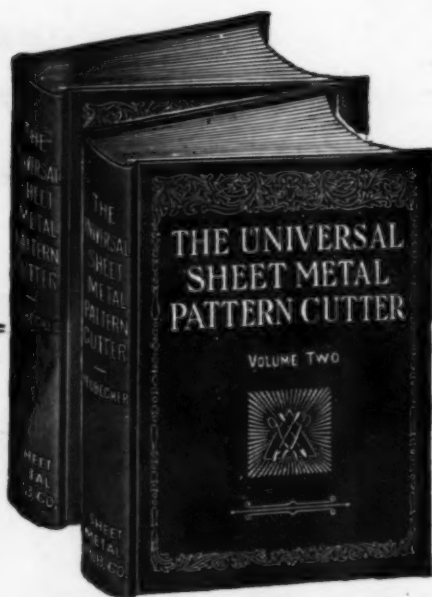
## FOR SALE

The best proposition on the market. Old established heating and sheet metal business whose owner is retiring. Have an A-1 reputation for good goods and high grade work. Has run as high as \$52,000.00 a year. Two-thirds of our work is not figured. Invoice approximately \$5,000.00. If you are OK you can swing this for \$3,000.00 cash. Rapidly growing city of 25,000 in western Illinois. Have spent \$15,000.00 in 20 years advertising. Good money maker for a live wire. Address W34, American Artisan, 620 South Michigan Avenue, Chicago, Ill.



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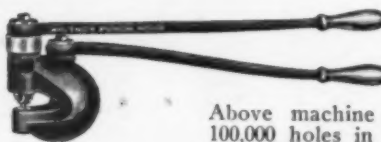
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"All-Rite" Model to cut 20 gauge and lighter

8 foot shears - \$55.00

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A time and money saver fully guaranteed. Fit any brake.

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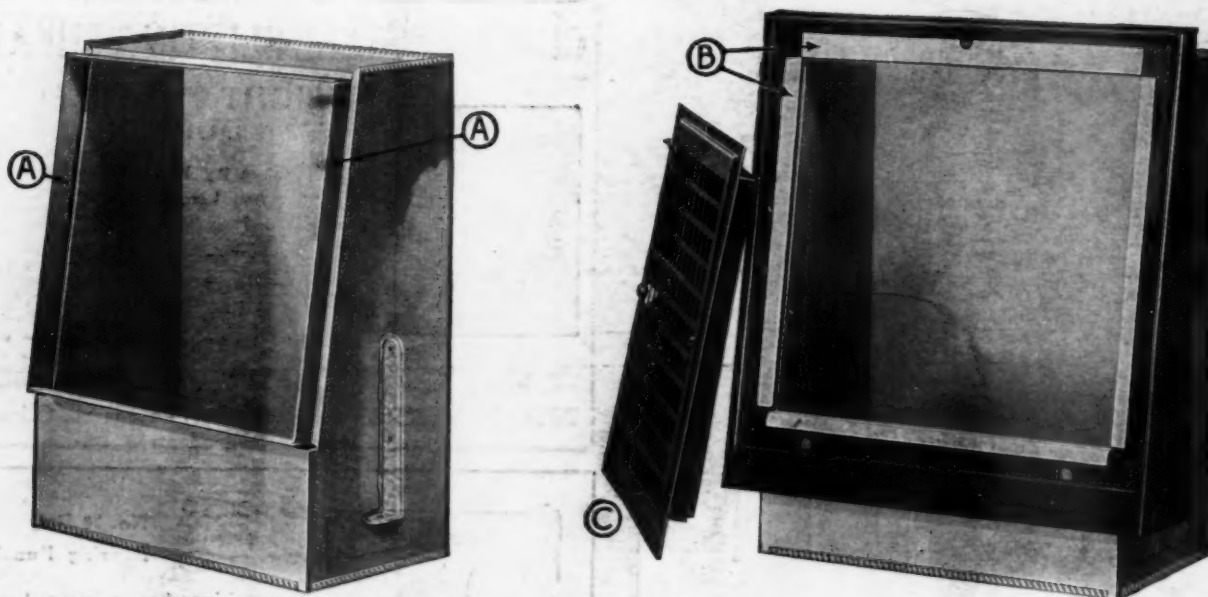
# WIRE

electrical, rope, barbed, plain, nails (bright

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Sales Offices: Chicago, New York and All Principal Cities



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